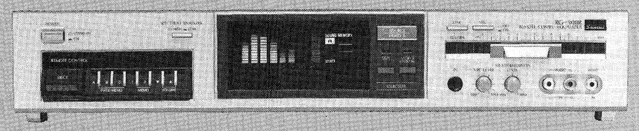
SERVICE MANUAL

REMOTE COMPU-EQUALIZER

SANSUI RG-900R

(Silver & Black Model)



CAUTION

1. Parts identified by the ⚠ symbol on the schematic diagram and the parts list are critical for safety. Use only replacement parts that have critical characteristics recommended by the manufacturer.
2. Make leakage-current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

Sansui

SANSUI ELECTRIC CO., LTD.

•SPECIFICATIONS

Input sensitivity and impedance (1 kHz)
SOURCE IN, TAPE PLAY, VIDEO S. IN ..... 150 mV/50 kohms
MIC ..... 0.4 mV/10 kohms
Output level (1 kHz)
TAPE REC ..... 150 mV/47 kohms
SOURCE OUT ..... 150 mV/47 kohms
(Maximum output level: 4V/47 kohms at 0.5% total harmonic distortion)
Total harmonic distortion (1 kHz, 2V)
SOURCE IN, TAPE PLAY, VIDEO S. IN 0.05%
Frequency response (150 mV)
SOURCE IN, TAPE PLAY, VIDEO S. IN ..... 20 Hz ~ 20 kHz, +1 dB, −1 dB
Signal to noise ratio (Short-circuit, A-network)
SOURCE IN, TAPE PLAY, VIDEO S. IN ..... 75 dB
Channel separation (1 kHz)
SOURCE IN, TAPE PLAY, VIDEO S. IN ..... 50 dB
Equalizer frequency ..... 63 Hz, 160 Hz, 400 Hz, 1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz
Level variation range ..... ±10 dB
Reverb time ..... 0 ~ 3 sec.
Delay time ..... 20 msec.
Power requirements ..... 120/220/240V (50/60 Hz)
For U.S.A. and Canada ..... 120 V (60 Hz)
Power consumption ..... 10 watts
Dimensions ..... 430 mm (16-15/16″) W
78 mm (3-1/8″) H
227 mm (8-15/16″) D
Weight ..... 2.8 kg (6.2 lbs) net
3.7 kg (8.2 lbs) packed

* Design and specifications subject to change without notice for improvements.
* Due to local laws and regulations, this unit sold in some areas are not equipped with variable voltage selectors

CAUTION

1. The symbols, UL, CSA, SA, BS, UK, EU, AS, XX <EXPORT> and XX-V <EXPORT(V)> on the parts list and the schematic diagram mean followings respectively.

UL	Manufactured for U.S.A market. (Underwriters Laboratories approved model.)
CSA	Manufactured for Canadian market.
SA	Manufactured for South African market.
BS, UK	Manufactured for United Kingdom market.
EU	Manufactured for European market.
AS	Manufactured for Australian market.
XX <EXPORT>	Standard Version with Inner Voltage Selector.
XX-V <EXPORT(V)>	Standard Version with Outer Voltage Selector.
NON MARK	Common Parts.

2. Some printed circuit boards are not supplied as the assembled. To separate these in this service manual, the stock No's are not indicated at the ends of the board names. However, the individual parts on the circuit boards are provided by orders.

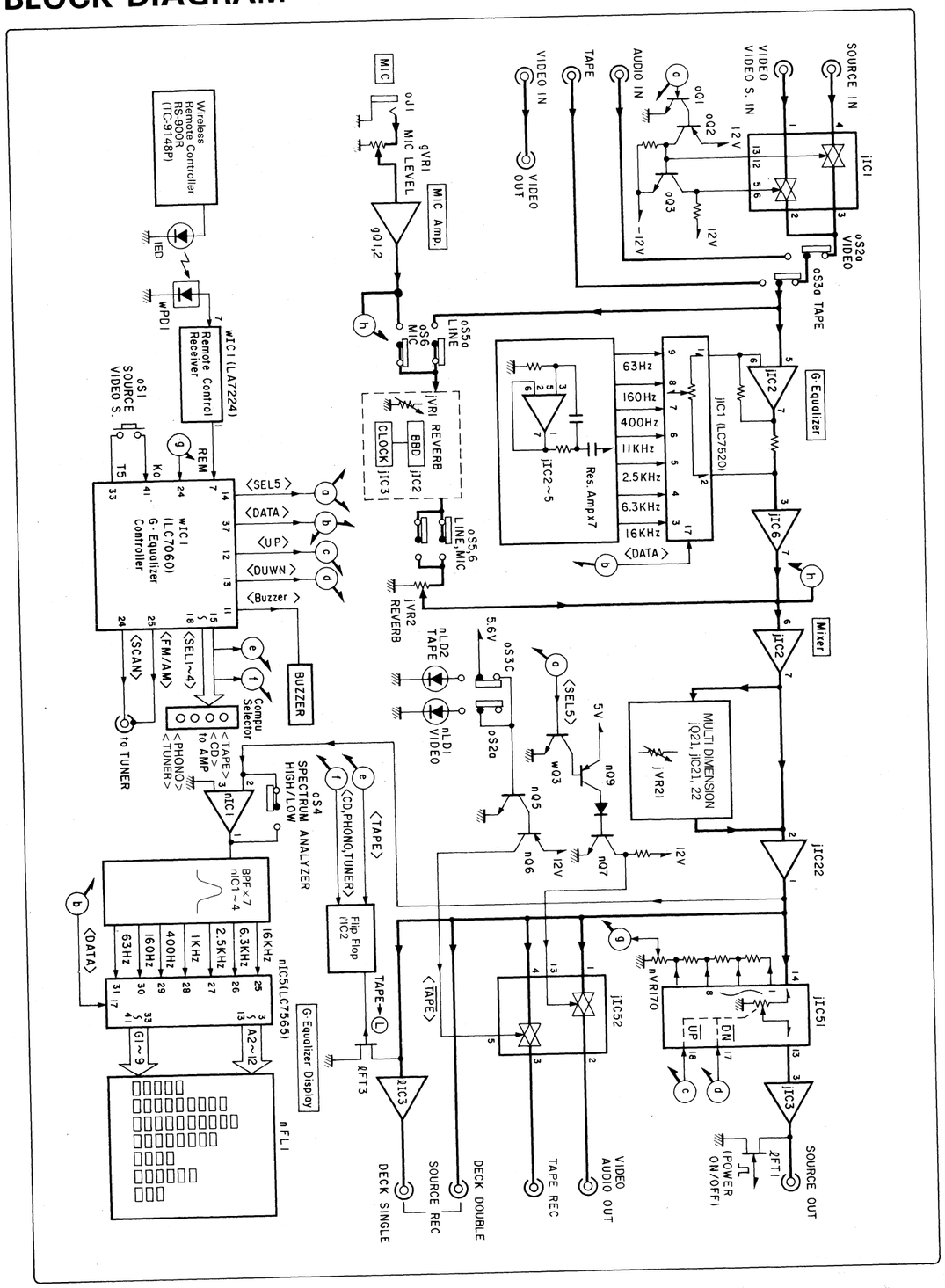
3. Since some of capacitors and resistors are omitted from parts lists in this service manual, refer to the Common Parts List for capacitors & resistors, which was issued on February 1983.

4. Abbreviations in this service manual are as follows.

•Abbreviations List

C.R.	: Carbon Resistor	E.B.L.	: Low Leak Bi-Polar Electrolytic Capacitor
S.R.	: Solid Resistor	Ta.C.	: Tantalum Capacitor
Ce.R.	: Cement Resistor	F.C.	: Film Capacitor
M.R.	: Metal Film Resistor	M.P.	: Metalized Paper Capacitor
F.R.	: Fusing Resistor	P.C.	: Polystyrene Capacitor
N.I.R.	: Non-Inflammable Resistor	G.C.	: Gimmic Capacitor
A.R.	: Array Resistor	A.C.	: Array Capacitor
C.C.	: Ceramic Capacitor	V.R.	: Variable Resistor
C.T.	: Ceramic Capacitor, Temperature Compensation	S.V.R.	: Semi Variable Resistor
E.C.	: Electrolytic Capacitor	SW.	: Switch
E.L.	: Low Leak Electrolytic Capacitor	Chip R.	: Chip Resistor
E.B.	: Bi-Polar Electrolytic Capacitor	Chip C.	: Chip Capacitor

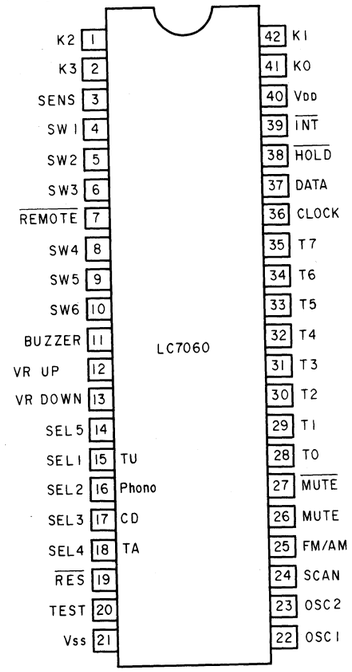
1. BLOCK DIAGRAM



2. DESCRIPTION OF GRAPHIC EQUALIZER CONTROLLER IC, LC7060

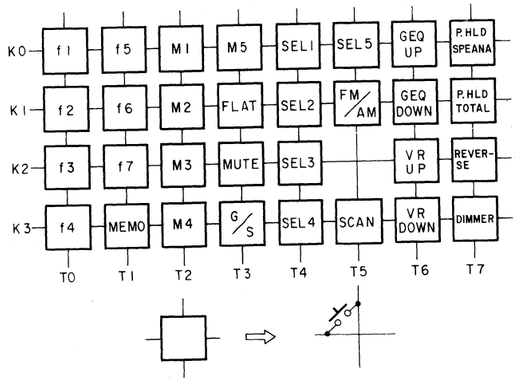
1. Pin Arrangement

•LC7060 (Graphic Equalizer Controller IC)



2. Description of Terminals

(1) K_0 to K_3 and T_0 to T_7 configure a key matrix.


K0
K1
K2
K3
f1 f5 M1 M5 SEL1 SEL5 GEQ UP P.HLD SPEANA
f2 f6 M2 FLAT SEL2 FM/AM GEQ DOWN P.HLD TOTAL
f3 f7 M3 MUTE SEL3 VR UP REVERSE
f4 MEMO M4 G/S SEL4 SCAN VR DOWN DIMMER
T0 T1 T2 T3 T4 T5 T6 T7

(2) SENS (I)
This terminal is used for checking whether back-up function is reset or not when power is turned on. If at "H" when the power is on, this indicates that the back-up function is reset; if at "L", this indicates that initialization is made when power is turned on.

(3) $\overline{\text{REMOTE}}$ (I)
This terminal is used for inputting remote-control signals.

(4) SW1 to SW6 (I)
Functions of these switches are listed below. (For further detail, see Items on each key function)

SW No.	Function	"L"	"H"
SW1	Designation of the number of user's memory units	User memory:2 Maker option:3	User memory:5
SW2	Switching of GEQ electronic variable resistor ICs LC7520 and LC7522.	LC7520	LC7522
SW3	Switching of display ICs LC7565 and LC7560.	LC7565	LC7560
SW4	Switching of G/S key functions	If SW5 is at "L", GEQ is displayed for 5 seconds. If SW5 is at "H", the present mode is displayed.	The present mode (auto mode or GEQ display mode) is displayed.
SW5	Switching of memory display flashing on/off and memory number function specification	Memory display flashes.	Memory display stays on. Memory:5+3 LC7820 is usable
SW6	Switching of display IC for using it as SPEANA display only	GEQ controller usually	Setting of SPEANA display when power is on

*Auto-mode: GEQ is displayed when G/S key is depressed.
After 5 sec, SPEANA is displayed automatically.
GEQ display mode: GEQ is displayed fixedly.

(5) BUZZER ($\overline{O}$)
This terminal is used for actuating a piezoelectric buzzer. When keys are operated, a signal having a frequency of several-hundred hertz is outputted from this terminal.

(6) VR UP/DOWN ($\overline{O}$)
These terminals are used for outputting a signal for activating an electronic variable resistor.
When VR UP/DOWN keys are depressed, and "H" pulse is outputted for 0.1 sec from each port corresponding to the depressed key.

(7) SEL 1 to 5 ($\overline{O}$)
These terminals are used for outputting a signal for switching functions.
SEL 1 to 4 ..... When SEL 1 to SEL 4 are depressed, an "H" pulse is outputted for 0.3 sec from each port.
SEL 5..... When SEL 5 key is depressed, the terminal output signal is cyclically inversed. When SEL 1 to 4 are being selected, the signal is at "L".

(8) FM/AM ($\overline{O}$)
This terminal is used for switching tuner bands. When FM/AM key is depressed, an "H" pulse is outputted for 0.3 sec.

(9) SCAN ($\overline{O}$)
This terminal is used for outputting a tuner scanning signal. When SCAN key is depressed, an "H" pulse is outputted for 0.3 sec.

(10) MUTE, $\overline{\text{MUTE}}$ ($\overline{O}$)
These terminals are used for outputting a mute signal. When MUTE key is depressed, the signal is at "H".
When not depressed, the signal is at "L". $\overline{\text{MUTE}}$ terminal is logically reverse of MUTE.

(11) DATA, CLOCK ($\overline{O}$)
These terminals are used for outputting a signal applied to ECS IC. With respect to data transfer.

***MUTE additional specifications**
Even when MUTE key is not depressed, MUTE is truned on as follows:
(1) When M1 to M5, FLAT and REVERSE keys are depressed, MUTE is kept on for 0.1 sec.
(2) When SCAN key is depressed, MUTE is kept on for 0.3 sec.
(3) When SEL 1 to 5, FM/AM keys are depressed or when power is turned on, MUTE is kept on for 0.5 sec.
Note: When one of SEL 1 to 4 is depressed twice, MUTE is turned on twice.

3. Key Functions

(1) f1 to f7 Frequency Selection Keys
* When GEQ setting is required to change, a required frequency band can be selected by use of these keys.
* The selected band begins flashing.
* Whenever these keys are depressed, GEQ is displayed automatically.
* If no other keys are depressed for 5 sec after one of these keys is depressed, SPEANA is displayed automatically.

(2) GEQ UP/DOWN GEQ Set Point Up/Down Shifting Keys
* After a frequency band has been selected by use of f1 to f7 keys, the selected band can be shifted up and down by use of these keys (±2 dB step).
* If these keys are kept depressed, the band is shifted up and down at a speed of 0.5 sec per step.
* When there exists no flashing band, the band is not shifted.
* When the band reaches the upper or lower limit, the band is not shifted.
* When no other keys are depressed for 5 sec after these keys have been released, SPEANA is displayed automatically.

(3) MEMO MEMORY Key
* When the present GEQ set point is required to store, this key enables memory to store the set point.
* While memory is being enabled, MEMORY indication flashes (ON for 0.5 sec and OFF for 0.5 sec).
* When this key is depressed, GEQ is displayed automatically.
* When no other keys are depressed for 5 sec after this key has been depressed, SPEANA is displayed automatically and MEMORY indication goes off.
* When another key (except this key) is depressed within 5 sec after this key has been depressed, the memory "enable" is released and MEMORY indication goes off.
* When SW5 is at "H", MEMORY indication does not flash but stays on.

(4) M1 to M5 Preset Memory Keys
* These keys are used for access to preset memory. When these keys are depressed, an indicator corresponding to depressed preset memory number comes on.
* When this key is depressed with MEMORY kept on, the set points are written into a designated memory.
Note: If SW1 is at "L", since M3 to M5 are maker's optional memory, it is impossible to write the set points.
* When this key is depressed with MEMORY kept off, the contents of designated memory can be read out.
* When this key is depressed, GEQ is displayed automatically.
* When 5 sec has elapsed after this key was depressed, SPEANA is displayed automatically.

(5) FLAT Flat Key
* This key allows GEQ presetting to be flat (f1 to f7 is 0 dB).
* When SW3 is at "L", an indicator corresponding to M6 comes on.
* When this key is depressed, GEQ is displayed automatically.
* When 5 sec has elapsed after this key was depressed, SPEANA is displayed automatically.

(6) G/S GEQ/SPEANA Display Switching Key
* This key is used for switching displays.
* When SW4 and SW5 are both at "L". GEQ is displayed for 5 sec. After that, SPEANA is displayed automatically.
* When SW4 is at "H", the present display can be switched from GEQ to SPEANA or vice versa.
This display mode is heal until this key is depressed again.
(i) When SPEANA is displayed after this key has been depressed (SPEANA mode), GEQ is displayed when another key is depressed. After 5 sec, SPEANA is displayed (normal specification).
(ii) When GEQ is displayed after this key has been depressed (GEQ mode), GEQ is kept displayed even if another key is depressed and 5 sec has elapsed (no SPEANA display).
* When SW5 is at "H" and SW4 is at "L", the display can be switched only by the use of this key. The display is never switched automatically.

(7) SEL 1 to 5 Selector Keys
* These keys are used for setting functions.
* SEL 1 to 4 ..... An "H" pulse is outputted for 0.3 sec from an output port corresponding to a depressed key.
* SEL 5..... The output is inversed cyclically. When SEL 1 to 4 are being selected, the output is at "L".
* When functions are switched, MUTE ON signal is outputted for 0.5 sec from MUTE and $\overline{MUTE}$ terminals.
* When power is turned on, SEL 1 is set to "L".

(8) VR UP/DOWN Variable Resistor Up/Down Keys
* These keys are used for controlling electronic variable resistors.
* When these keys are depressed, an "H" pulse is outputted from the output port corresponding to a depressed key.
* When kept depressed, the "H" pulse is outputted at time intervals of 0.5 sec.

(9) MUTE Mute Key
* This key is used for turning MUTE on or off.
* Whenever this key is depressed, the output signal from MUTE and $\overline{MUTE}$ terminals is reversed cyclically.
* When MUTE is turned on, the indicator comes on.

(10) FM/AM Band Switching Key
* This key is used for switching tuner bands.
* When this key is depressed, an "H" pulse is outputted for 0.3 sec from FM/AM terminal.

(11) SCAN Scanning Key
* This key is used for scanning tuner.
* When this key is depressed, an "H" pulse is outputted for 0.3 sec from SCAN terminal.

(12) P. HLD SPEANA/TOTAL Peak Hold ON/OFF Keys
* These keys are used for turning peak hold on or off in displaying SPEANA and TOTAL.
* When SW3 is at "H", these keys are disabled.
* The peak hold is turned on or off cyclically in SPEANA display and TOTAL display, independently.
* When power is turned on for initialization, SPEANA is on and TOTAL is off.

(13) REVERSE Reverse Key
* This key is used for reversing GEQ preset points from plus to minus or vice versa. (Reversed up side down with respect to 0 dB)
* When this key is depressed, GEQ is displayed automatically.
* When 5 sec has elapsed after this key was depressed, SPEANA is displayed automatically.

(14) DIMMER Dimmer Key
* This key is used for turning DIMMER on or off.
* When SW3 is at "H", this key is disabled.
* When power is on, DIMMER is off.

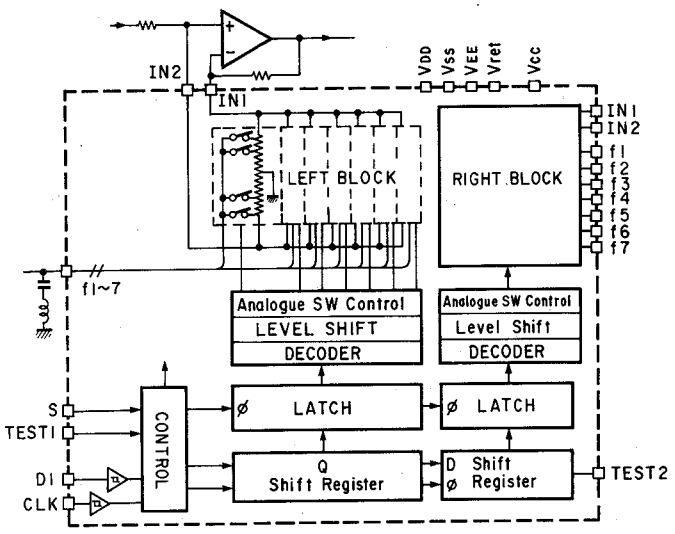
4. Other Specifications

(1) Sensor Tone Specification
* Whenever each key is depressed, a sound signal (885 Hz) is outputted for 80 msec from BUZZER terminal.
* When f1 to f7 and FLAT keys are depressed, sound signals having the following frequencies are outputted for 80 msec.

f1: 441 Hz	f5: 662 Hz
f2: 495 Hz	f6: 741 Hz
f3: 556 Hz	f7: 833 Hz
f4: 588 Hz	FLAT: 885 Hz

3. INTERIOR BLOCK DIAGRAM & TERMINAL FUNCTION OF IC

•LC7520 (Graphic Equalizer IC)



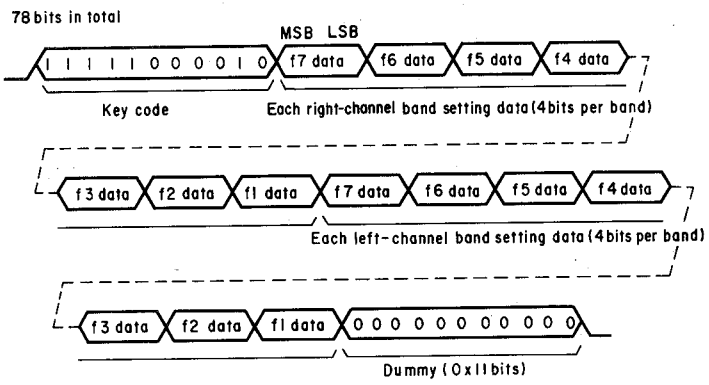
<Functions>

1. Seven frequency band circuits are incorporated for each right and left side.
2. Frequency is variable at 2 dB per step within a range of ±10 dB (11 positions per band) by the use of UP/DOWN keys.
3. A microcomputer is used for control. Two control lines are provided.

<Description of Terminals>

Pin No.	Terminal Name	Description
10	V_{DD}	Power terminal for audio signal +18V TYP
12	V_{ref}	Power terminal for logic driving V_{DD} −5V TYP
18	V_{SS}	Power terminal for ground 0V
19	V_{EE}	Power terminal for audio signals −18V TYP
13	V_{CC}	Power terminal +5V
17	D_I	*CPU data input terminal *Schmitt inverter type
16	CLK	*CPU CLK input terminal *Schmitt inverter type
1,28 2,27	IN1 IN2	*Audio signal input terminals *IN1 is usually connected to an inversion input of an operational amplifier. *IN2 is usually connected to a non-inversion input of an operational amplifier. *Provided for each right and left.
9~3 26~20	f1~f7	*Band pass filter connecting terminals *14 terminals in total (f1 to f7 for each side)
11	S	*Selector terminal (when two chips are used) *In response to "1", key code 7C3 is connected to V_{DD} *In response to "0", key code 7C2 is connected to V_{ref}
14 15	TEST1 TEST2	*IC internal-function test terminal *Open in usual

<Data bits>

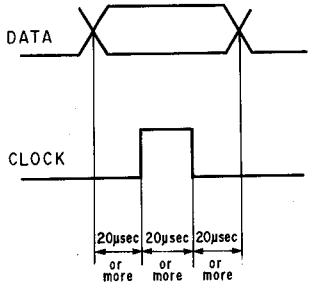


<Band setting data codes>

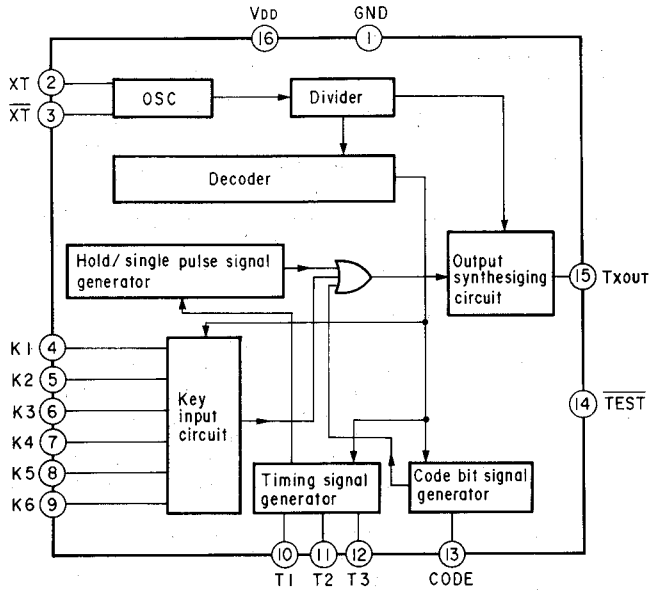
	MSB			LSB
+10 dB	0	1	0	1
+8	0	1	0	0
+6	0	0	1	1
+4	0	0	1	0
+2	0	0	0	1
0	0	1	1	0

	MSB			LSB
−2 dB	1	0	0	1
−4	1	0	1	0
−6	1	0	1	1
−8	1	1	0	0
−10	1	1	0	1

<Output timing chart between clock and data from microcomputer>



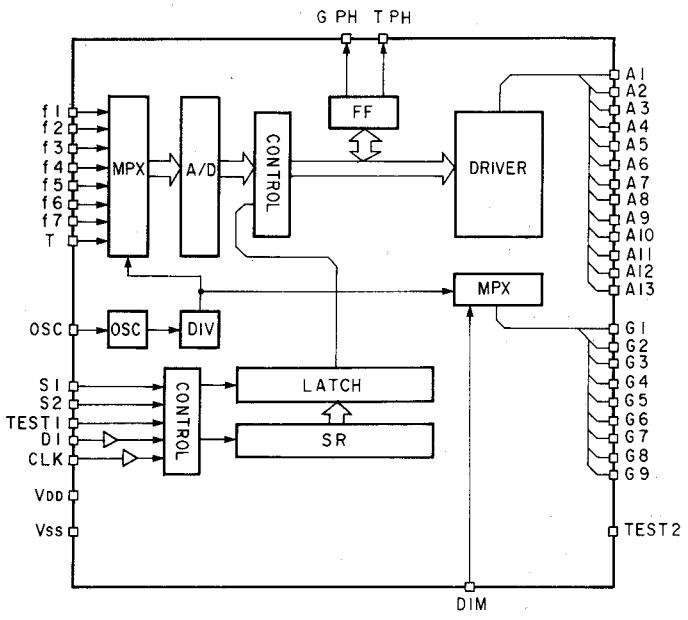
•TC9148P (Infrared Remote-Control Transmitter IC)



<Description of Terminals>

Pin No.	Terminal Name	Description
1,16	GND, V_{DD}	Ground and power supply terminals. Power supply voltage is applied.
2,3	XT, $\overline{XT}$	Generator terminals. A 455 kHz ceramic oscillator (including a feedback resistor) is connected.
4 ~ 9	$K_1 \sim K_6$	Key input terminal. Signals from key-matrix keys are inputted. 18 keys are connectable by use of T_1 to T_3 and K_1 to K_6 multiplicably. (A pull-down resistor is included)
10 ~ 12	$T_1 \sim T_3$	Timing signal output terminal. Digit timing signals for key matrix are outputted.
13	CODE	Code bit input terminal. Codes are matched between transmission and reception.
14	$\overline{TEST}$	Test terminal. Usually, this terminal is open.
15	T_{XOUT}	Transmitted signal output terminal. Transmitted signal is bits per cycle, being modulated by a 38 kHz carrier wave.

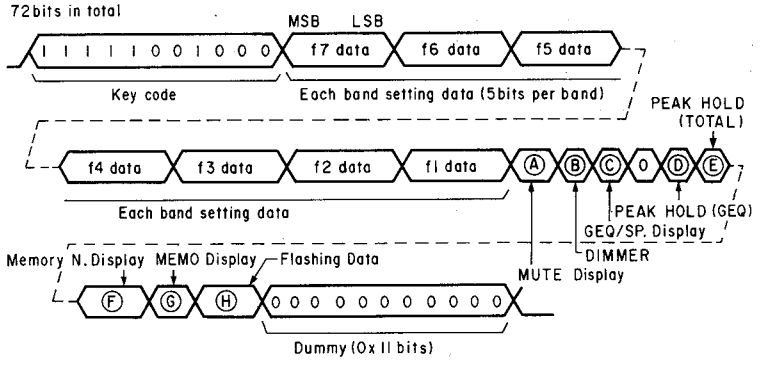
•LC7565 (G•EQ Display Driver IC)



<Description of Terminals>

Pin No.	Terminal Name	Description
42 19	V_{DD} V_{SS}	Power terminal +5V Typ Power terminal GND
17 18	DI CLK	CPU data input terminal CPU CLK input terminal
15 16	S1 S2	Selection Terminal (When plural chips are used. 4 pieces in maximum).
21	G•PH	C, R connecting terminal. The CR determines a peak hold reset time to display graphic equalizer in spectrum analyzer fashion.
22	T•PH	C, R connecting terminal. The CR determines a peak hold reset time in TOTAL dispaly.
32	DIM	Terminal for controlling dimmer by directly driving the IC (when not controller by CPU). Dimmer is on at "1" but off at "0".
31 ~ 25, 24	f1 ~ f7, T	Rectified audio signal voltage input terminal
20	OSC	Open-drain type output buffer Temrinal for externally connecting C and R for oscillator
2 ~ 14 41 ~ 33	A1 ~ A13 G1 ~ G9	Open-drain driver. Anode driven type Open-drain driver. Grid driven type

<Data Code>



<Band Setting Data Code>

	MSB				LSB
+12 dB	1	1	1	0	0
+10	1	1	0	1	0
+8	1	1	0	0	0
+6	1	0	1	1	0
+4	1	0	1	0	0
+2	1	0	0	1	0
0	1	0	0	0	0

	MSB				LSB
−2 dB	0	1	1	1	0
−4	0	1	1	0	0
−6	0	1	0	1	0
−8	0	1	0	0	0
−10	0	0	1	1	0
−12	0	0	1	0	0

•LC7530 (Electronic Sound Volume IC)

<Description of Terminals>

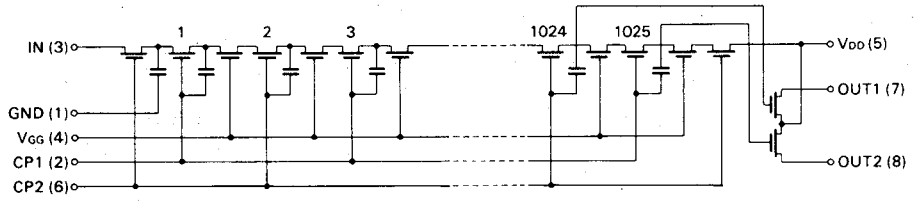
Pin No.	Terminal Name	Description
1~8	IND1~8	Sound volume position displaying output terminals: When $\overline{INIT}$ is at "L", only IND5 is at "H".
9,14	SIG1,2	Analog switch input terminal: Signals to be attenuated by the IC are inputted.
10,13	COM 1, 2	Analog switch output terminal: Signals attenuatted by the IC are outputted.

Control terminal of alanog switch	IND 1	2	3	4	5	6	7	8
1	H							
2	H	H						
3		H						
4		H	H					
5			H					
6			H	H				
7				H				
8				H	H			
9					H			
10					H	H		
11						H		
12						H	H	
13							H	
14							H	H
15								H

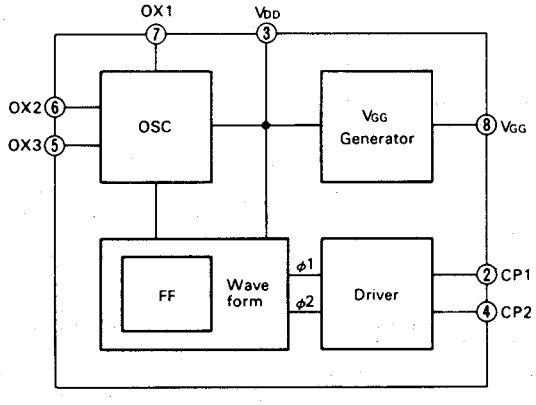
*Blanks are all floating terminals
H: P-channel comes on.

Pin No.	Terminal Name	Description
11	V_M	Bias voltage terminal: When a signal bias voltage is required, this terminal voltage (1/2 V_{DD}) is used.
12	V_{SS}	GND terminal
15	CE	When this terminal voltage is set to GND level, the IC is set to back-up mode and the output is in a floating state. Power consumption is reduced.
16	$\overline{INIT}$	Initial terminal: If at "L", step is 9 and terminal IND5 changes to "H".
17	$\overline{DN}$	When this terminal voltage is decreased, the step decreaes and attenuation constant increases. Further, if kept at "L", attenuation constant increases continuously; however, the instant the terminal voltage is set to "H", the attenuation constant is held at that step.
18	$\overline{UP}$	This terminal voltage functions reversely of that at $\overline{DN}$ terminal. When $\overline{UP}$ and $\overline{DN}$ are both at "L", $\overline{UP}$ terminal has a priority. Further, terminal voltages at $\overline{UP}$ and $\overline{DN}$ stop changing in response to MSB or LSB.
19	CR	This terminal is used to determine step speed. Resistors and capacitors are connected (open drain).
20	V_{DD}	Positive power supply terminal

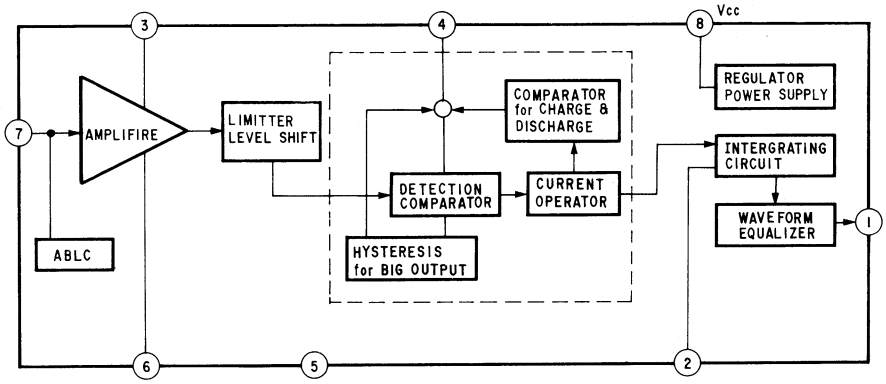
•MN3007 <Bucket Brigade Device (BDB)>



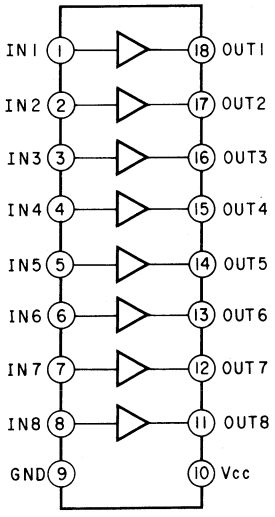
•MN3101 <BBD Clock Driver>



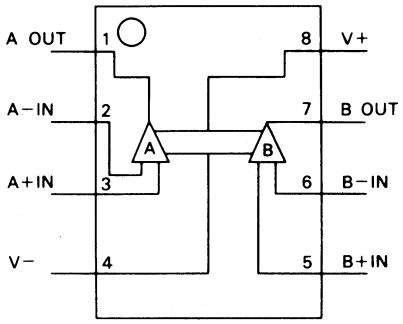
•LA7224 (Remote Control Receiver IC)



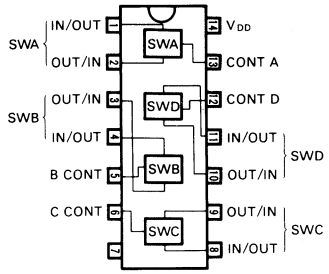
•LB1290 (Driver IC)



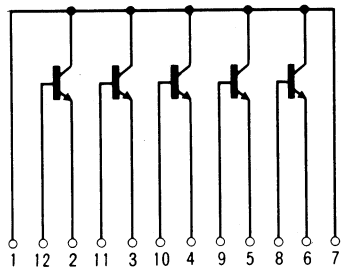
•NJM4558D/NJM4559D/M5218P <OP Amp.>



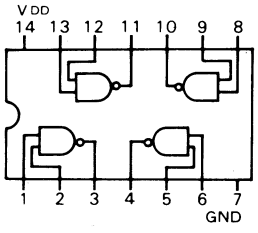
•LC4966/LC4066BH (Quad Bi-lateral SW. IC)



•TA76 (TR Array)



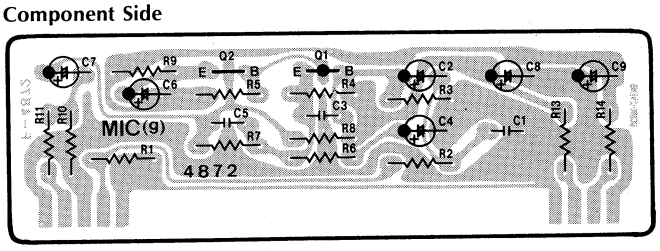
•μPD4011BC/M4011BP/BU4011B (NAND1～4)



4. PARTS LOCATION & PARTS LIST

4-1. F-4872 Mic Amp. Board (Stock No. 00893101)

Component Side

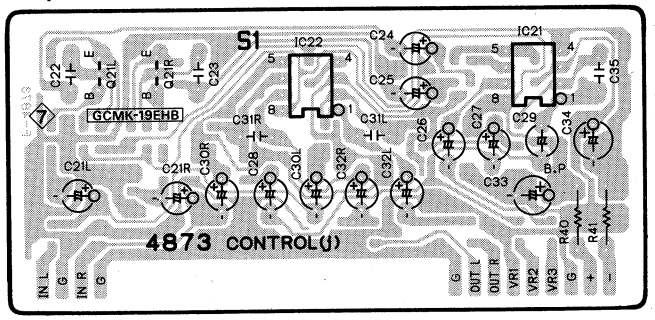


Parts List

Parts No.	Stock No.	Description
•Transistor		
gQ1	46581601	2SA992
gQ2	46577801	2SC2320L
	or 46581701	2SC1845
⚠gR13	46229000	100Ω 1/2W N.I.R.
⚠gR14	46229000	100Ω 1/2W N.I.R.

4-2. F-4873 Multi Demention Board (Stock No. 00893201)

Component Side



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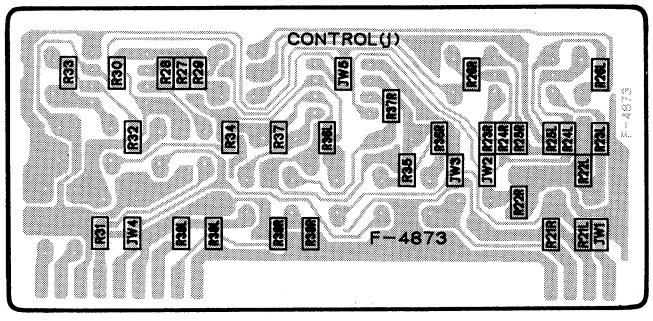


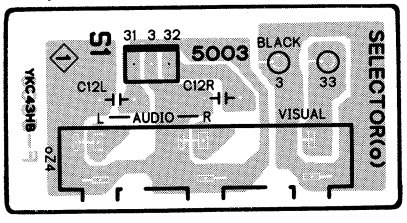
Parts List

Parts No.	Stock No.	Description
jQ21	46367101	2SC2603
	or 46367301	2SC2458
	or 46391901	2SC2785
	or 48058801	2SC1740S
•IC		
jIC21	03607700	NJM4558D
	or 46580100	M5218P
jIC22	03607700	NJM4558D
	or 46580100	M5218P
jJW1	46741100	Cross Conductor (Chip)
jJW2	46741100	Cross Conductor (Chip)
jJW3	46741100	Cross Conductor (Chip)
jJW4	46741100	Cross Conductor (Chip)
jJW5	46741100	Cross Conductor (Chip)
jR21	46752400	100kΩ 1/8W Chip R.
jR22	46752400	100kΩ 1/8W Chip R.
jR23	46750000	10kΩ 1/8W Chip R.

Parts No.	Stock No.	Description
jR24	46748400	2.2kΩ 1/8W Chip R.
jR25	46748400	2.2kΩ 1/8W Chip R.
jR26	46750600	18kΩ 1/8W Chip R.
jR27	46752200	82kΩ 1/8W Chip R.
jR28	46753000	180kΩ 1/8W Chip R.
jR29	46753000	180kΩ 1/8W Chip R.
jR30	46752200	82kΩ 1/8W Chip R.
jR31	46750000	10kΩ 1/8W Chip R.
jR32	46751600	47kΩ 1/8W Chip R.
jR33	46752800	150kΩ 1/8W Chip R.
jR34	46752800	150kΩ 1/8W Chip R.
jR35	46751600	47kΩ 1/8W Chip R.
jR36	46752800	150kΩ 1/8W Chip R.
jR37	46752800	150kΩ 1/8W Chip R.
jR38	46752800	150kΩ 1/8W Chip R.
jR39	46746800	470Ω 1/8W Chip R.
⚠jR40	00135300	47Ω 1/2W N.I.R.
⚠jR41	00135300	47Ω 1/2W N.I.R.
jC29	48103500	2.2μF 50V E.B.

4-3. F-5003 VIDEO IN & AUDIO IN Terminal Board

Component Side



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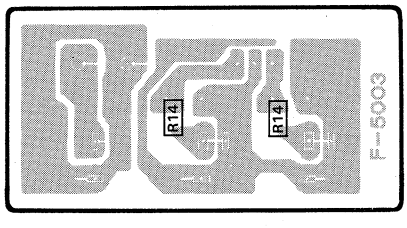
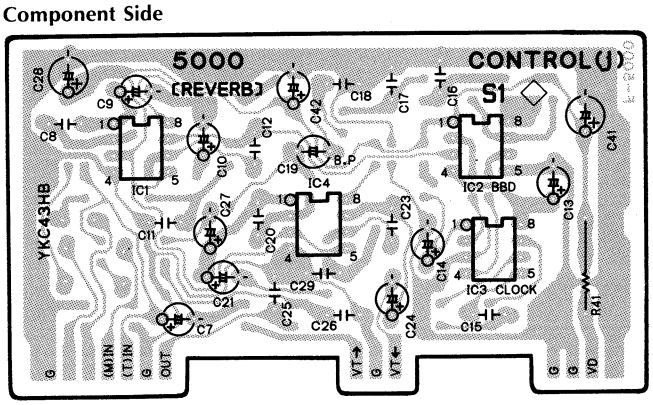


Parts List

Parts No.	Stock No.	Description
jR14	48210900	1.5kΩ 1/8W Chip R.
oZ4	48072500	3P Terminal, VIDEO IN, AUDIO IN

4-4. F-5000 Reverb Amp. Board (Stock No. 00891601)

Component Side



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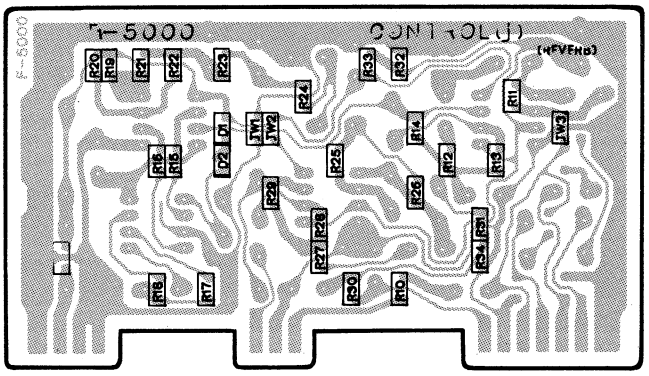


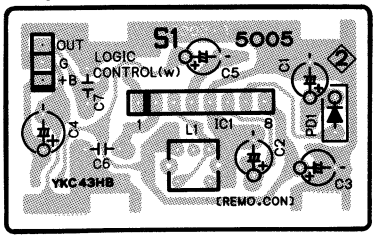
Parts List

Parts No.	Stock No.	Description
•IC		
jIC1	03607700	NJM4558D
	or 46580100	M5218P
jIC2	46221500	MN3007
jIC3	46080300	MN3101
jIC4	03607700	NJM4558D
	or 46580100	M5218P
•Diode		
jD1	46852000	RLS-73 (Chip)
jD2	46852000	RLS-73 (Chip)
jJW1	46741100	Cross Conductor (Chip)
jJW2	46741100	Cross Conductor (Chip)
jJW3	46741100	Cross Conductor (Chip)
jR10	46752400	100kΩ 1/8W Chip R.
jR11	46752400	100kΩ 1/8W Chip R.
jR12	46751000	27kΩ 1/8W Chip R.
jR13	46750200	12kΩ 1/8W Chip R.
jR14	46751000	27kΩ 1/8W Chip R.
jR15	46749200	4.7kΩ 1/8W Chip R.
jR16	46749200	4.7kΩ 1/8W Chip R.

Parts No.	Stock No.	Description
jR17	46753100	200kΩ 1/8W Chip R.
jR18	46750800	22kΩ 1/8W Chip R.
jR19	46752400	100kΩ 1/8W Chip R.
jR20	46752400	100kΩ 1/8W Chip R.
jR21	46749400	5.6kΩ 1/8W Chip R.
jR22	46749400	5.6kΩ 1/8W Chip R.
jR23	46751000	27kΩ 1/8W Chip R.
jR24	46751000	27kΩ 1/8W Chip R.
jR25	46751000	27kΩ 1/8W Chip R.
jR26	46751800	56kΩ 1/8W Chip R.
jR27	46751000	27kΩ 1/8W Chip R.
jR28	46750600	18kΩ 1/8W Chip R.
jR29	46751800	56kΩ 1/8W Chip R.
jR30	46747600	1kΩ 1/8W Chip R.
jR31	46747600	1kΩ 1/8W Chip R.
jR32	46752400	100kΩ 1/8W Chip R.
jR33	46752400	100kΩ 1/8W Chip R.
jR34	46752400	100kΩ 1/8W Chip R.
⚠jR41	46229000	100Ω 1/2W N.I.R.
jC19	48103400	1μF 50V E.B.

4-5. F-5005 Remote Controll Receiver Board (Stock No. 00892101)

Component Side



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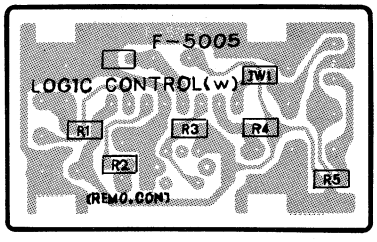


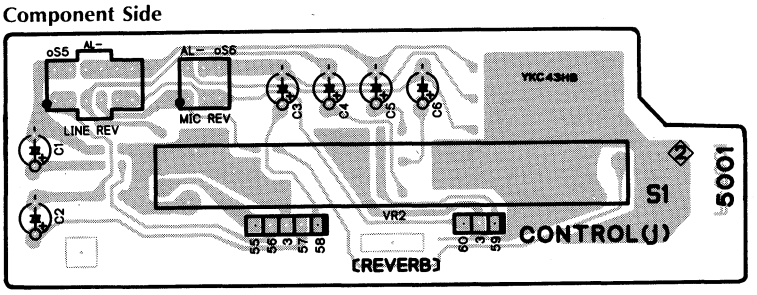
Parts List

Parts No.	Stock No.	Description
•IC		
wIC1	48159100	LA7224
wPD1	48194400	Photo Diode PD-48PI-1
wJW1	48204000	Cross Conductor (Chip)
wR1	48210500	1kΩ 1/8W Chip R.
wR2	48206500	22Ω 1/8W Chip R.
wR3	48216100	220kΩ 1/8W Chip R.

Parts No.	Stock No.	Description
wR4	48212900	10kΩ 1/8W Chip R.
wR5	48211300	2.2kΩ 1/8W Chip R.
wC1	48153300	10μF 16V E.C.
wC2	48153500	22μF 16V E.C.
wC3	48153700	47μF 16V E.C.
wC4	48153700	47μF 16V E.C.
wC5	48153900	4.7μF 25V E.C.
wL1	48179100	Coil (38kHz)

4-6. F-5001 LINE REVERB & MIC REVERB SW. Board

Component Side



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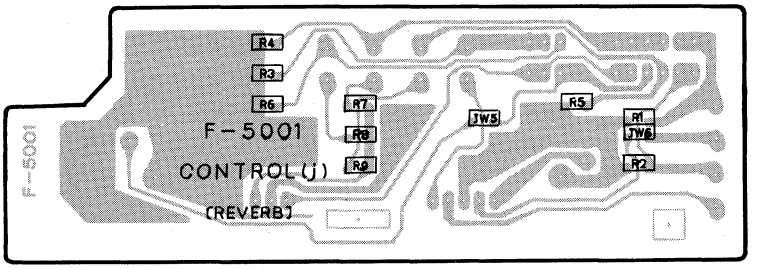
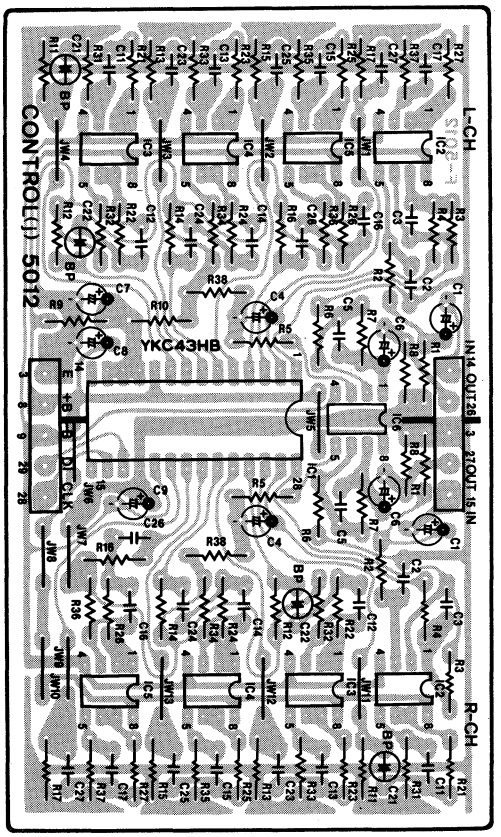


Parts List

Parts No.	Stock No.	Description
jJW5	48204000	Cross Conductor (Chip)
jJW6	48204000	Cross Conductor (Chip)
jR1	48216500	330kΩ 1/8W Chip R.
jR2	48216500	330kΩ 1/8W Chip R.
jR3	48216500	330kΩ 1/8W Chip R.
jR4	48216500	330kΩ 1/8W Chip R.
jR5	48216500	330kΩ 1/8W Chip R.
jR6	48216500	330kΩ 1/8W Chip R.
jR7	48215300	100kΩ 1/8W Chip R.
jR8	48215300	100kΩ 1/8W Chip R.
jR9	48215300	100kΩ 1/8W Chip R.
jVR2	48196800	20kΩ (B) V.R., REVERB
oS5	46556300	Push SW., LINE
oS6	46556400	Push SW., MIC

4-7. F-5012 Graphic Equalizer Board (Stock No. 00892801)

Component Side

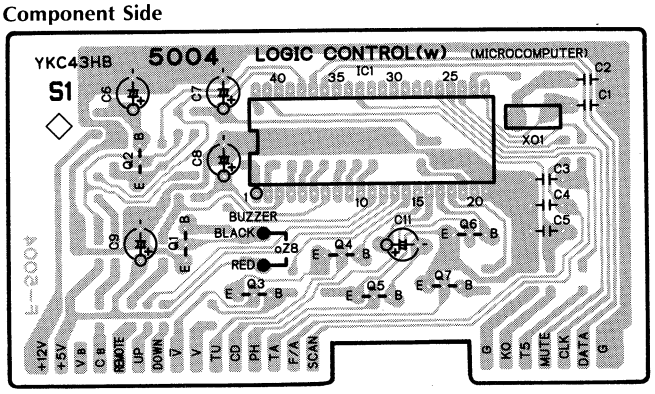


Parts List

Parts No.	Stock No.	Description
•IC		
jIC1	48159300	LC7520
jIC2	03607700	NJM4558D
	or 07208900	NJM4558D-X
	or 46580100	M5218P
	or 46673800	M5218P
jIC3	03607700	NJM4558D
	or 07208900	NJM4558D-X
	or 46580100	M5218P
	or 46673800	M5218P
jIC4	03607700	NJM4558D
	or 07208900	NJM4558D-X
	or 46580100	M5218P
	or 46673800	M5218P
jIC5	03607700	NJM4558D
	or 07208900	NJM4558D-X
	or 46580100	M5218P
	or 46673800	M5218P
jIC6	03607700	NJM4558D
	or 07208900	NJM4558D-X
	or 46580100	M5218P
	or 46673800	M5218P
jC21	48103200	0.47μF 50V E.B.
jC22	48102900	0.15μF 50V E.B.

4-8. F-5004 Graphic Equalizer Control Board (Stock No. 00892001)

Component Side



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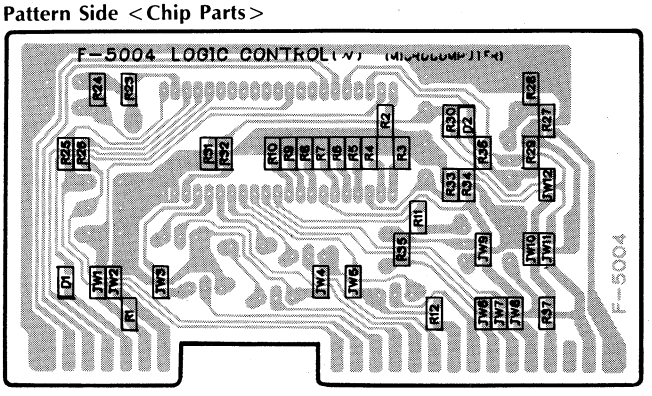


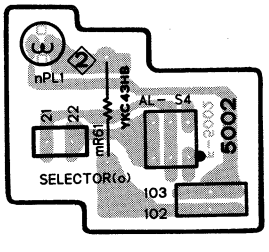
Parts List

Parts No.	Stock No.	Description
oZ8	07244900	Buzzer PKM12-4A2
•Transistor		
wQ1	46367101	2SC2603
	or 46367301	2SC2458
wQ2	46367101	2SC2603
	or 46367301	2SC2458
wQ3	46719900	DTC124
wQ4	46719900	DTC124
wQ5	46719900	DTC124
wQ6	46719900	DTC124
wQ7	46719900	DTC124
•IC		
wIC1	48159200	LC7060
wXO1	46668700	Ceramic Element KBR-400B
•Diode		
wD1	46852000	RLS-73 (Chip)
wD2	46852000	RLS-73 (Chip)
wJW1	46741100	Cross Conductor (Chip)
wJW2	46741100	Cross Conductor (Chip)
wJW3	46741100	Cross Conductor (Chip)
wJW4	46741100	Cross Conductor (Chip)
wJW5	46741100	Cross Conductor (Chip)
wJW6	46741100	Cross Conductor (Chip)
wJW7	46741100	Cross Conductor (Chip)
wJW8	46741100	Cross Conductor (Chip)
wJW9	46741100	Cross Conductor (Chip)

Parts No.	Stock No.	Description
wJW10	46741100	Cross Conductor (Chip)
wJW11	46741100	Cross Conductor (Chip)
wJW12	46741100	Cross Conductor (Chip)
wR1	46752400	100kΩ 1/8W Chip R.
wR2	46752400	100kΩ 1/8W Chip R.
wR3	46752400	100kΩ 1/8W Chip R.
wR4	46752400	100kΩ 1/8W Chip R.
wR5	46752400	100kΩ 1/8W Chip R.
wR6	46752400	100kΩ 1/8W Chip R.
wR7	46752400	100kΩ 1/8W Chip R.
wR8	46752400	100kΩ 1/8W Chip R.
wR9	46752400	100kΩ 1/8W Chip R.
wR10	46752400	100kΩ 1/8W Chip R.
wR11	46750000	10kΩ 1/8W Chip R.
wR12	46750000	10kΩ 1/8W Chip R.
wR23	46749200	4.7kΩ 1/8W Chip R.
wR24	46754800	1MΩ 1/8W Chip R.
wR25	46749200	4.7kΩ 1/8W Chip R.
wR26	46749200	4.7kΩ 1/8W Chip R.
wR27	46750800	22kΩ 1/8W Chip R.
wR28	46750800	22kΩ 1/8W Chip R.
wR29	46750000	10kΩ 1/8W Chip R.
wR30	46753200	220kΩ 1/8W Chip R.
wR32	46750000	10kΩ 1/8W Chip R.
wR33	46750400	15kΩ 1/8W Chip R.
wR34	46752400	100kΩ 1/8W Chip R.
wR35	46747600	1kΩ 1/8W Chip R.
wR36	46750000	10kΩ 1/8W Chip R.
wR37	46747600	1kΩ 1/8W Chip R.

4-9. F-5002 SPECTRUM ANALYZER SW. Board

Component Side

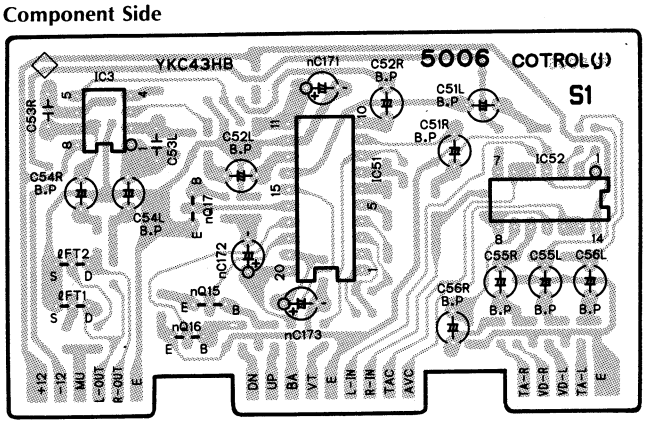


Parts List

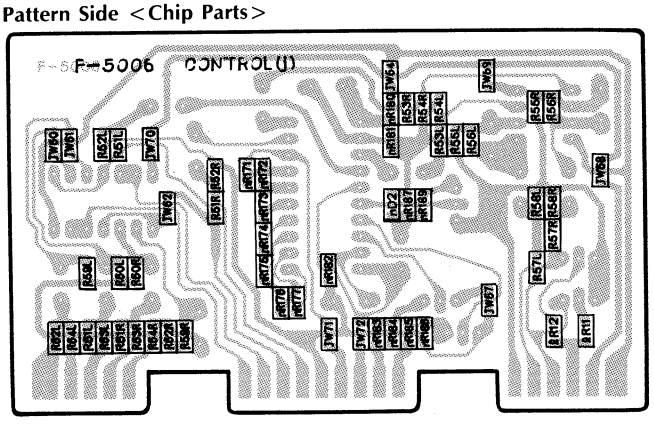
Parts No.	Stock No.	Description
⚠mR61	46248700	33Ω 1W N.I.R.
nPL1	48180000	14V 0.1A Pilot Lamp
oS4	48169400	Push SW., SPECTRUM ANALYZER

4-10. F-5006 Electronic Sound Volume Board (Stock No. 00892201)

Component Side



Pattern Side <Chip Parts>

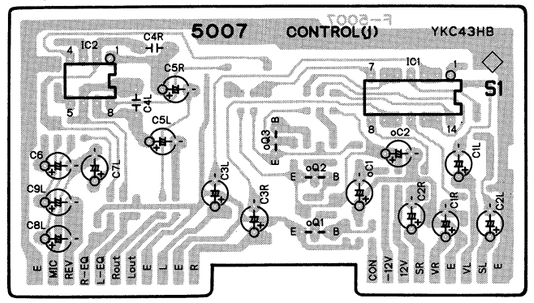


Parts List

Parts No.	Stock No.	Description
•IC		
jIC3	03607700	NJM4558D
	or 46580100	M5218P
jIC51	46671600	LC7530
jIC52	46255000	LC4066BH
	or 48056800	LC4966
jJW60	46741100	Cross Conductor (Chip)
jJW61	46741100	Cross Conductor (Chip)
jJW62	46741100	Cross Conductor (Chip)
jJW64	46741100	Cross Conductor (Chip)
jJW67	46741100	Cross Conductor (Chip)
jJW68	46741100	Cross Conductor (Chip)
jJW69	46741100	Cross Conductor (Chip)
jJW70	46741100	Cross Conductor (Chip)
jJW72	46741100	Cross Conductor (Chip)
jR51	46747600	1kΩ 1/8W Chip R.
jR52	46753200	220kΩ 1/8W Chip R.
jR53	46747600	1kΩ 1/8W Chip R.
jR54	46752400	100kΩ 1/8W Chip R.
jR55	46752400	100kΩ 1/8W Chip R.
jR56	46750000	10kΩ 1/8W Chip R.
jR57	46748400	2.2kΩ 1/8W Chip R.
jR58	46753200	220kΩ 1/8W Chip R.
jR59	46753200	220kΩ 1/8W Chip R.
jR60	46753200	220kΩ 1/8W Chip R.
jR61	46753200	220kΩ 1/8W Chip R.
jR62	46753200	220kΩ 1/8W Chip R.
jR63	46744600	56Ω 1/8W Chip R.
jR64	46744600	56Ω 1/8W Chip R.
jC51	48103500	2.2μF 50V E.B.
jC52	48103500	2.2μF 50V E.B.
jC54	48103500	2.2μF 50V E.B.
jC55	48103500	2.2μF 50V E.B.
jC56	48103500	2.2μF 50V E.B.
•FET		
IFT1	46643500	2SK163-K1
	or 46643501	2SK163-K2
	or 46643502	2SK163-L1
	or 46643503	2SK163-L2
	or 46643600	2SK117-O
	or 46643601	2SK117-Y
IFT2	46643500	2SK163-K1
	or 46643501	2SK163-K2
	or 46643502	2SK163-L1
	or 46643503	2SK163-L2
	or 46643600	2SK117-O
	or 46643601	2SK117-Y
IR11	46750000	10kΩ 1/8W Chip R.
IR12	46750000	10kΩ 1/8W Chip R.
•Transistor		
nQ15	46367101	2SC2603
	or 46367301	2SC2458
nQ16	46367101	2SC2603
	or 46367301	2SC2458
nQ17	46367101	2SC2603
	or 46367301	2SC2458
•Diode		
nD2	46852000	RLS-73 (Chip)
nR170	46749600	6.8kΩ 1/8W Chip R.
nR171	46748700	3kΩ 1/8W Chip R.
nR172	46749000	3.9kΩ 1/8W Chip R.
nR173	46749200	4.7kΩ 1/8W Chip R.
nR174	46749400	5.6kΩ 1/8W Chip R.
nR175	46749700	7.5kΩ 1/8W Chip R.
nR176	46750000	10kΩ 1/8W Chip R.
nR177	46751000	27kΩ 1/8W Chip R.
nR180	46749400	5.6kΩ 1/8W Chip R.
nR181	46749400	5.6kΩ 1/8W Chip R.
nR182	46751800	56kΩ 1/8W Chip R.
nR183	46750000	10kΩ 1/8W Chip R.
nR184	46752400	100kΩ 1/8W Chip R.
nR185	46750000	10kΩ 1/8W Chip R.
nR186	46752400	100kΩ 1/8W Chip R.
nR187	46749200	4.7kΩ 1/8W Chip R.
nR189	46750800	22kΩ 1/8W Chip R.

4-11. F-5007 Input Source Selector Board (Stock No. 00892301)

Component Side



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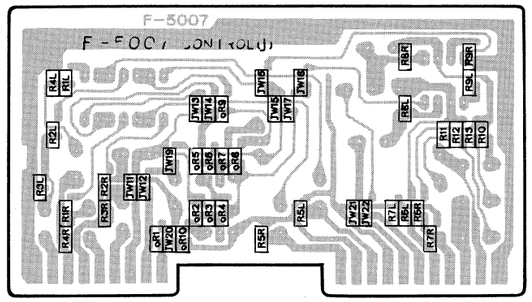


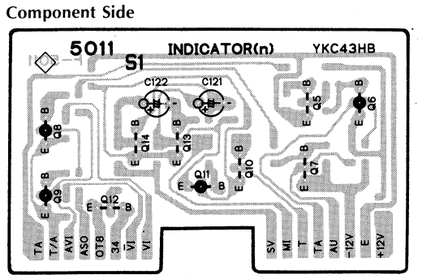
Parts List

Parts No.	Stock No.	Description
•IC		
jIC1	46255000	LC4066BH
	or 48056800	LC4966
jIC2	03607700	NJM4558D
	or 46580100	M5218P
jJW11	46741100	Cross Conductor (Chip)
jJW12	46741100	Cross Conductor (Chip)
jJW13	46741100	Cross Conductor (Chip)
jJW14	46741100	Cross Conductor (Chip)
jJW15	46741100	Cross Conductor (Chip)
jJW16	46741100	Cross Conductor (Chip)
jJW17	46741100	Cross Conductor (Chip)
jJW18	46741100	Cross Conductor (Chip)
jJW19	46741100	Cross Conductor (Chip)
jJW20	46741100	Cross Conductor (Chip)
jJW21	46741100	Cross Conductor (Chip)
jJW22	46741100	Cross Conductor (Chip)
jR1	46747600	1kΩ 1/8W Chip R.
jR2	46747600	1kΩ 1/8W Chip R.
jR3	46752400	100kΩ 1/8W Chip R.
jR4	46752400	100kΩ 1/8W Chip R.
jR5	46753600	330kΩ 1/8W Chip R.
jR6	46752400	100kΩ 1/8W Chip R.
jR7	46752400	100kΩ 1/8W Chip R.

Parts No.	Stock No.	Description
jR8	46752400	100kΩ 1/8W Chip R.
jR9	46748400	2.2kΩ 1/8W Chip R.
jR10	46752400	100kΩ 1/8W Chip R.
jR11	46752400	100kΩ 1/8W Chip R.
jR12	46752400	100kΩ 1/8W Chip R.
jR13	46752400	100kΩ 1/8W Chip R.
•Transistor		
oQ1	46367101	2SC2603
	or 46367301	2SC2458
oQ2	46367001	2SA1115
	or 46367201	2SA1048
oQ3	46367101	2SC2603
	or 46367301	2SC2458
oR1	46750800	22kΩ 1/8W Chip R.
oR2	46750800	22kΩ 1/8W Chip R.
oR3	46750000	10kΩ 1/8W Chip R.
oR4	46752400	100kΩ 1/8W Chip R.
oR5	46752400	100kΩ 1/8W Chip R.
oR6	46751600	47kΩ 1/8W Chip R.
oR7	46750000	10kΩ 1/8W Chip R.
oR8	46750800	22kΩ 1/8W Chip R.
oR9	46752400	100kΩ 1/8W Chip R.
oR10	46750800	22kΩ 1/8W Chip R.

4-12. F-5011 Display Control Board (Stock No. 00892701)

Component Side



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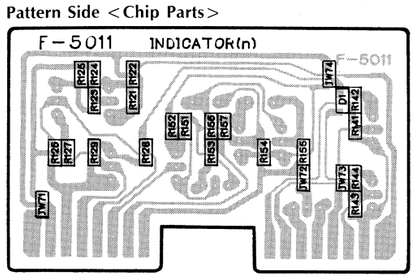


Parts List

Parts No.	Stock No.	Description
•Transistor		
nQ5	46367101	2SC2603
	or 46367301	2SC2458
nQ6	46367001	2SA1115
	or 46367201	2SA1048
nQ7	46367101	2SC2603
	or 46367301	2SC2458
nQ8	46367001	2SA1115
	or 46367201	2SA1048
nQ9	46367001	2SA1115
	or 46367201	2SA1048
	or 48058601	2SA933S
nQ10	46367101	2SC2603
	or 46367301	2SC2458

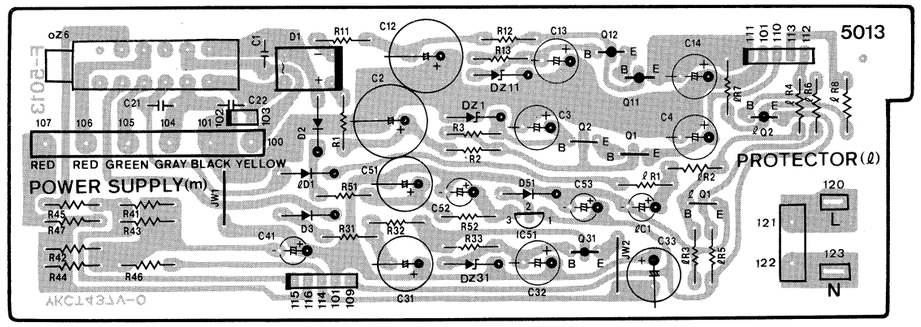
Parts List <F-5011>

Parts No.	Stock No.	Description
nQ11	46367001	2SA1115
	or 46367201	2SA1048
nQ12	46367101	2SC2603
	or 46367301	2SC2458
nQ13	46367101	2SC2603
	or 46367301	2SC2458
nQ14	46367101	2SC2603
	or 46367301	2SC2458
•Diode		
nD1	46852000	RLS-73 (Chip)
nJW71	46741100	Cross Conductor (Chip)
nJW72	46741100	Cross Conductor (Chip)
nJW73	46741100	Cross Conductor (Chip)
nJW74	46741100	Cross Conductor (Chip)
nR121	46751200	33kΩ 1/8W Chip R.
nR122	46752400	100kΩ 1/8W Chip R.

Parts No.	Stock No.	Description
nR123	46750000	10kΩ 1/8W Chip R.
nR124	46752400	100kΩ 1/8W Chip R.
nR125	46752400	100kΩ 1/8W Chip R.
nR126	46752400	100kΩ 1/8W Chip R.
nR127	46752400	100kΩ 1/8W Chip R.
nR128	46750000	10kΩ 1/8W Chip R.
nR129	46752400	100kΩ 1/8W Chip R.
nR141	46752400	100kΩ 1/8W Chip R.
nR142	46750000	10kΩ 1/8W Chip R.
nR143	46752400	100kΩ 1/8W Chip R.
nR144	46750000	10kΩ 1/8W Chip R.
nR151	46752400	100kΩ 1/8W Chip R.
nR152	46750800	22kΩ 1/8W Chip R.
nR153	46750000	10kΩ 1/8W Chip R.
nR154	46750000	10kΩ 1/8W Chip R.
nR155	46750000	10kΩ 1/8W Chip R.
nR156	46752400	100kΩ 1/8W Chip R.
nR157	46752400	100kΩ 1/8W Chip R.

4-13. F-5013 Power Supply Board (Stock No. 00892901)

Component Side



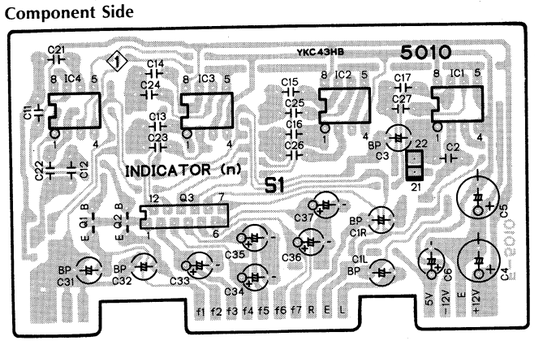
Parts List

Parts No.	Stock No.	Description
•Transistor		
IQ1	46367101	2SC2603
	or 46367301	2SC2458
IQ2	46367001	2SA1115
	or 46367201	2SA1048
•Diode		
⚠ID1	03117700	10E-2
⚠IR1	46227400	4.7Ω 1/2W N.I.R.
•Transistor		
⚠mQ1	03083901	2SD313AL
⚠	or 46546701	2SD880
⚠	or 48073601	2SD1061
⚠mQ2	46367101	2SC2603
⚠	or 46367301	2SC2458
⚠mQ11	03032301	2SB507V11AL
⚠	or 48064601	2SB825
mQ12	46367001	2SA1115
	or 46367201	2SA1048
⚠mQ31	46581601	2SA992
•IC		
⚠mIC51	46148600	NJM78L05A

Parts No.	Stock No.	Description
•Diode		
⚠mD1	46273600	DBB10-B
⚠mD2	03117700	10E-2
⚠mD3	03117700	10E-2
mD51	03117600	1S2473T77
•Zener Diode		
mDZ1	46114200	05Z13-Y
mDZ11	46114200	05Z13-Y
mDZ31	46116800	05Z33-X
⚠mR1	46227400	4.7Ω 1/2W N.I.R.
⚠mR2	46227400	4.7Ω 1/2W N.I.R.
⚠mR11	46227400	4.7Ω 1/2W N.I.R.
⚠mR12	46227400	4.7Ω 1/2W N.I.R.
⚠mR31	46227400	4.7Ω 1/2W N.I.R.
⚠mR32	46227800	10Ω 1/2W N.I.R.
⚠mR46	46230100	820Ω 1/2W N.I.R.
⚠mR51	46227400	4.7Ω 1/2W N.I.R.
⚠mR52	46229000	100Ω 1/2W N.I.R.
oZ6	48186800	Push SW., POWER (XX, XX-V, EU, BS, AS)
	48186900	Push SW., POWER (UL, CSA)

4-14. F-5010 BPF Board (Stock No. 00892601)

Component Side



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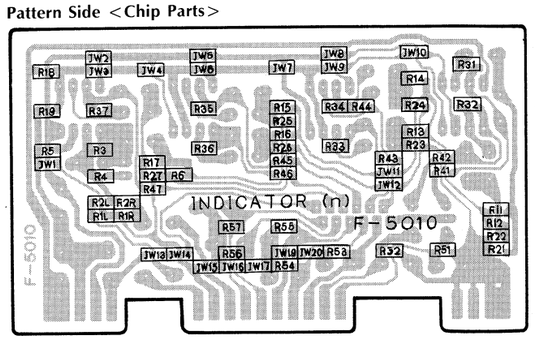


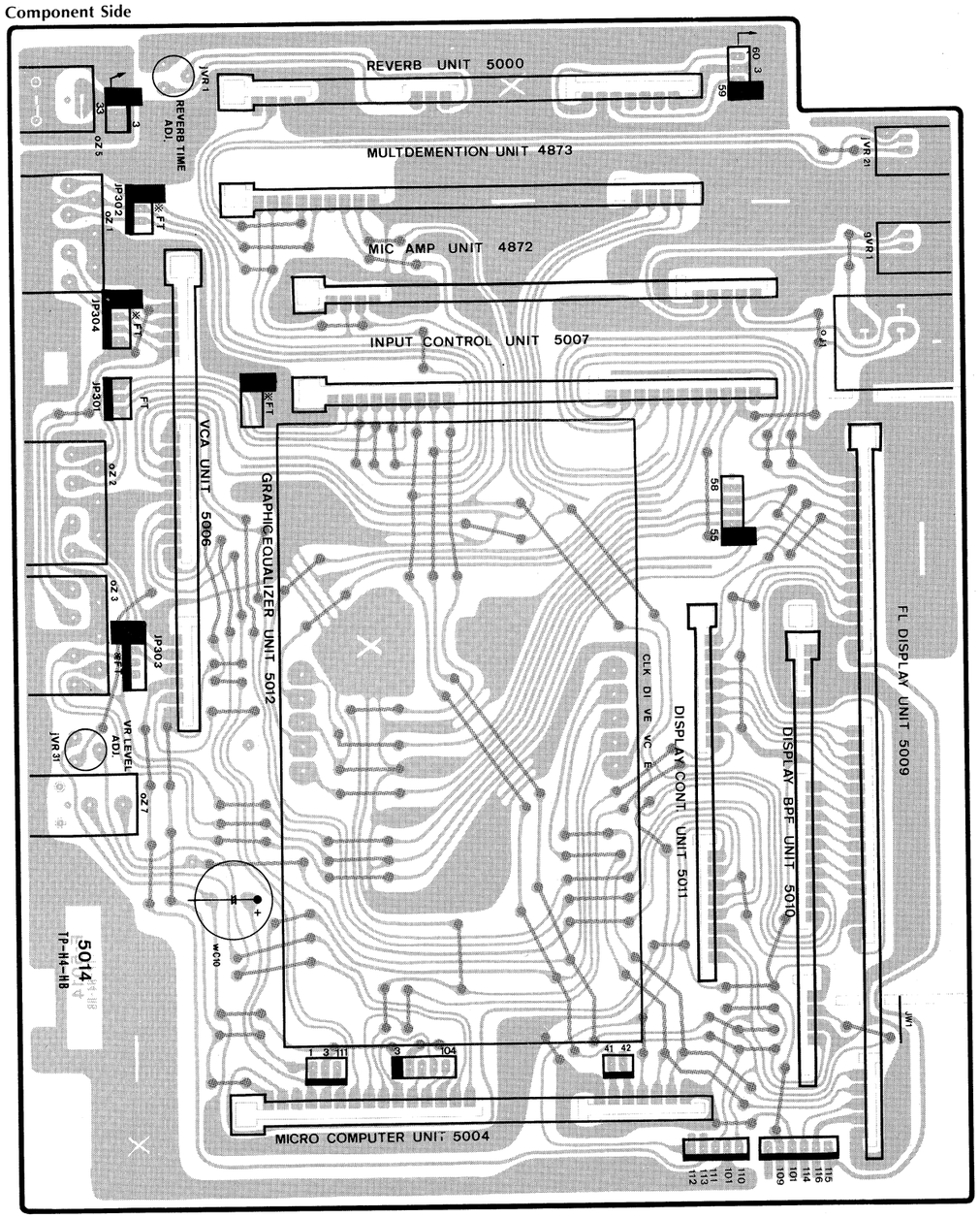
Parts List

Parts No.	Stock No.	Description
•Transistor		
nQ1	46367101	2SC2603
	or 46367301	2SC2458
nQ2	46367101	2SC2603
	or 46367301	2SC2458
•IC		
nIC1	03607700	NJM4558D
	or 03613800	NJM4559D-D
	or 46580100	M5218P
nIC2	03607700	NJM4558D
	or 03613800	NJM4559D-D
	or 46580100	M5218P
nIC3	03607700	NJM4558D
	or 03613800	NJM4559D-D
	or 46580100	M5218P
nIC4	03607700	NJM4558D
	or 03613800	NJM4559D-D
	or 46580100	M5218P
nQ3	48123400	TA76
•Diode		
nD8	48201900	RLS-73 (Chip)
nJW1	48204000	Cross Conductor (Chip)
nJW2	48204000	Cross Conductor (Chip)
nJW3	48204000	Cross Conductor (Chip)
nJW4	48204000	Cross Conductor (Chip)
nJW5	48204000	Cross Conductor (Chip)
nJW6	48204000	Cross Conductor (Chip)
nJW7	48204000	Cross Conductor (Chip)
nJW8	48204000	Cross Conductor (Chip)
nJW9	48204000	Cross Conductor (Chip)
nJW10	48204000	Cross Conductor (Chip)
nJW11	48204000	Cross Conductor (Chip)
nJW12	48204000	Cross Conductor (Chip)
nJW14	48204000	Cross Conductor (Chip)
nJW15	48204000	Cross Conductor (Chip)
nJW16	48204000	Cross Conductor (Chip)
nJW17	48204000	Cross Conductor (Chip)
nJW19	48204000	Cross Conductor (Chip)
nJW20	48204000	Cross Conductor (Chip)
nR1	48216100	220kΩ 1/8W Chip R.
nR2	48215300	100kΩ 1/8W Chip R.
nR3	48216000	200kΩ 1/8W Chip R.

Parts No.	Stock No.	Description
nR4	48215200	91kΩ 1/8W Chip R.
nR5	48213700	22kΩ 1/8W Chip R.
nR6	48215300	100kΩ 1/8W Chip R.
nR11	48215600	130kΩ 1/8W Chip R.
nR12	48214500	47kΩ 1/8W Chip R.
nR13	48214500	47kΩ 1/8W Chip R.
nR14	48214500	47kΩ 1/8W Chip R.
nR15	48214500	47kΩ 1/8W Chip R.
nR16	48214500	47kΩ 1/8W Chip R.
nR17	48214500	47kΩ 1/8W Chip R.
nR18	48214300	39kΩ 1/8W Chip R.
nR19	48210500	1kΩ 1/8W Chip R.
nR21	48213900	27kΩ 1/8W Chip R.
nR22	48212900	10kΩ 1/8W Chip R.
nR23	48212900	10kΩ 1/8W Chip R.
nR24	48212900	10kΩ 1/8W Chip R.
nR25	48212900	10kΩ 1/8W Chip R.
nR26	48212900	10kΩ 1/8W Chip R.
nR27	48212900	10kΩ 1/8W Chip R.
nR31	48217500	820kΩ 1/8W Chip R.
nR32	48216400	300kΩ 1/8W Chip R.
nR33	48216400	300kΩ 1/8W Chip R.
nR34	46753500	300kΩ 1/8W Chip R.
nR35	48216400	300kΩ 1/8W Chip R.
nR36	48216400	300kΩ 1/8W Chip R.
nR37	48216400	300kΩ 1/8W Chip R.
nR41	48212900	10kΩ 1/8W Chip R.
nR42	48212900	10kΩ 1/8W Chip R.
nR43	48212900	10kΩ 1/8W Chip R.
nR44	48212900	10kΩ 1/8W Chip R.
nR45	48212900	10kΩ 1/8W Chip R.
nR46	48212900	10kΩ 1/8W Chip R.
nR47	48212900	10kΩ 1/8W Chip R.
nR51	48215300	100kΩ 1/8W Chip R.
nR52	48215300	100kΩ 1/8W Chip R.
nR53	48215300	100kΩ 1/8W Chip R.
nR54	48215300	100kΩ 1/8W Chip R.
nR55	48215300	100kΩ 1/8W Chip R.
nR56	48215300	100kΩ 1/8W Chip R.
nR57	48215300	100kΩ 1/8W Chip R.
nC1	48103400	1μF 50V E.B.
nC3	48103400	1μF 50V E.B.
nC31	48103400	1μF 50V E.B.
nC32	48103400	1μF 50V E.B.

4-15. F-5014 Input/Output Terminal Board

Component Side



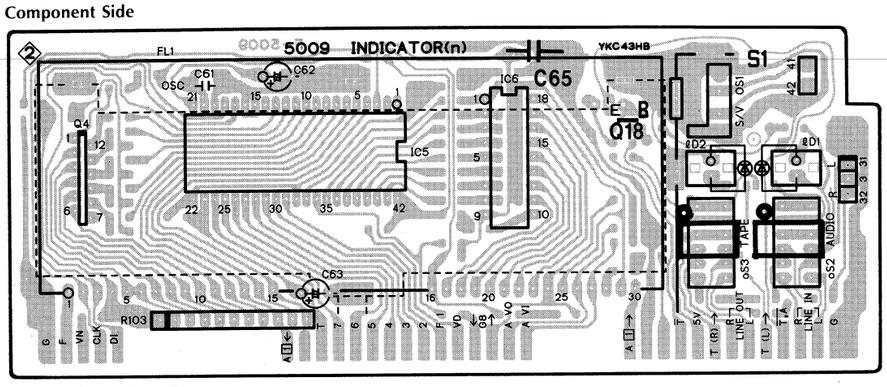
Parts List

Parts No.	Stock No.	Description
gVR1	48198300	20kΩ (A) V.R., MIC LEVEL
jVR1	48199700	20kΩ (B) S.V.R., Reverb Time Adj.
jVR21	48198400	10kΩ (B) V.R., MULTI DIMENSION
nVR170	48199500	5KΩ (B) S.V.R., Volume Position Adj.
oJ1	07219700	Jack, MIC

Parts No.	Stock No.	Description
oZ7	46547200	Jack, TUNER REMOTE
oZ1	46371500	4P Terminal, VIDEO S. IN/AUDIO OUT
oZ2	46371500	4P Terminal, SOURCE
oZ3	46371500	4P Terminal, TAPE
oZ5	48198000	1P Terminal, VIDEO OUT
wC10	46579700	4700μF 6.3V E.C.

4-16. F-5009 FL Display Board (Stock No. 00892501)

Component Side



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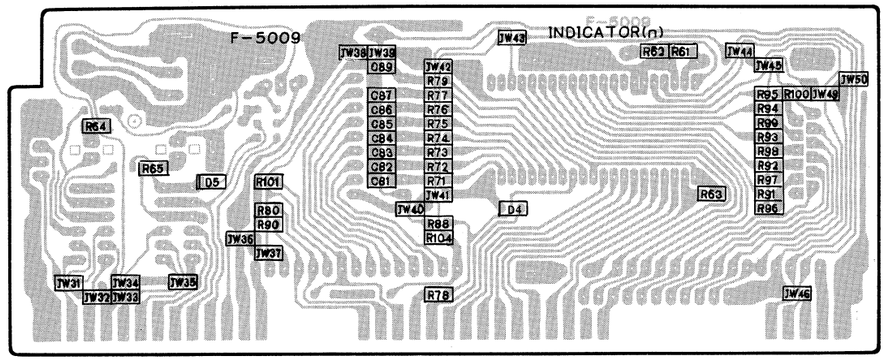


Parts List

Parts No.	Stock No.	Description
•Transistor		
nQ18	46367001	2SA1115
	or 46367201	2SA1048
•IC		
nIC5	48159400	LC7565
nIC6	48170500	LB1290
nQ4	48123400	TA76
•Diode		
nD4	48201800	RLS-73 (Chip)
nD5	48201900	RLS-73 (Chip)
nD6	03111600	1S2473
	or 03111800	1S1588
nD7	48201900	RLS-73 (Chip)
nFL1	48175600	FL. Display Tube CP1058AGLR
•LED		
nLD1	46176900	TLS-123
nLD2	46176900	TLS-123
nJW31	48204000	Cross Conductor (Chip)
nJW32	48204000	Cross Conductor (Chip)
nJW33	48204000	Cross Conductor (Chip)
nJW34	48204000	Cross Conductor (Chip)
nJW35	48204000	Cross Conductor (Chip)
nJW36	48204000	Cross Conductor (Chip)
nJW37	48204000	Cross Conductor (Chip)
nJW38	48204000	Cross Conductor (Chip)
nJW39	48204000	Cross Conductor (Chip)
nJW40	48204000	Cross Conductor (Chip)
nJW41	48204000	Cross Conductor (Chip)
nJW42	48204000	Cross Conductor (Chip)

Parts No.	Stock No.	Description
nJW43	48204000	Cross Conductor (Chip)
nJW44	48204000	Cross Conductor (Chip)
nJW45	48204000	Cross Conductor (Chip)
nJW46	48204000	Cross Conductor (Chip)
nJW47	48204000	Cross Conductor (Chip)
nJW49	48204000	Cross Conductor (Chip)
nJW50	48204000	Cross Conductor (Chip)
nR61	48212900	10kΩ 1/8W Chip R.
nR62	48215300	100kΩ 1/8W Chip R.
nR63	48212900	10kΩ 1/8W Chip R.
nR64	48209300	330Ω 1/8W Chip R.
nR65	48209300	330Ω 1/8W Chip R.
nR71	48216100	220kΩ 1/8W Chip R.
nR72	48216100	220kΩ 1/8W Chip R.
nR73	48216100	220kΩ 1/8W Chip R.
nR74	48216100	220kΩ 1/8W Chip R.
nR75	48216100	220kΩ 1/8W Chip R.
nR76	48216100	220kΩ 1/8W Chip R.
nR77	48216100	220kΩ 1/8W Chip R.
nR78	48212100	4.7kΩ 1/8W Chip R.
nR79	48216100	220kΩ 1/8W Chip R.
nR80	48215300	100kΩ 1/8W Chip R.
nR88	48215300	100kΩ 1/8W Chip R.
nR90	48215300	100kΩ 1/8W Chip R.
nR91	48212100	4.7kΩ 1/8W Chip R.
nR92	48212100	4.7kΩ 1/8W Chip R.
nR93	48212100	4.7kΩ 1/8W Chip R.
nR94	48212100	4.7kΩ 1/8W Chip R.
nR95	48212100	4.7kΩ 1/8W Chip R.
nR96	48215300	100kΩ 1/8W Chip R.
nR97	48215300	100kΩ 1/8W Chip R.
nR98	48215300	100kΩ 1/8W Chip R.
nR99	48215300	100kΩ 1/8W Chip R.
nR100	48215300	100kΩ 1/8W Chip R.

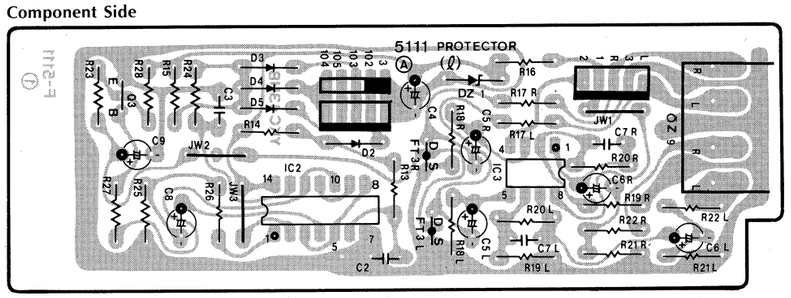
Parts List <F-5009>

Parts No.	Stock No.	Description
nR101	48215300	100kΩ 1/8W Chip R.
nR103	46354200	100kΩX10 1/8W A.R.
nR104	48215300	100kΩ 1/8W Chip R.
nR301	48213700	22kΩ 1/8W Chip R.
nR302	48215300	100kΩ 1/8W Chip R.
nC62	48152100	47μF 6.3V E.C.
nC63	48155200	0.1μF 50V E.C.
nC81	46778900	220pF 50V Chip C.
nC82	46778900	220pF 50V Chip C.

Parts No.	Stock No.	Description
nC83	46778900	220pF 50V Chip C.
nC84	46778900	220pF 50V Chip C.
nC85	46778900	220pF 50V Chip C.
nC86	46778900	220pF 50V Chip C.
nC87	46778900	220pF 50V Chip C.
nC89	46778900	220pF 50V Chip C.
oS1	46396700	Push SW., SOURCE/VIDEO S.
oS2	46556300	Push SW., VIDEO
oS3	46556300	Push SW., TAPE

4-17. F-5111 SOURCE REC Terminal Board (Stock No. 00914601)

Component Side



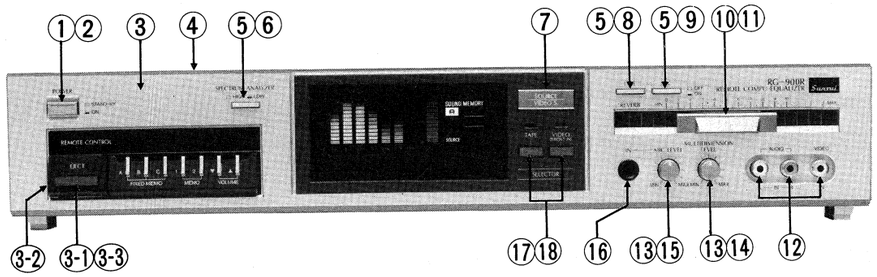
Parts List

Parts No.	Stock No.	Description
•FET		
IFT3	46421200	2SJ103-Y
	or 46421201	2SJ103-GR
	or 46421202	2SJ103-BL
•IC		
IIC2	46427200	μPD4011BC
	or 46631900	M4011BP
	or 48063700	BU4011B
IIC3	03607700	NJM4558D
	or 46580100	M5218P
•Diode		
ID2	03117600	1S2473T77
	or 46086000	1S1588TP-3

Parts No.	Stock No.	Description
ID3	03117600	1S2473T77
	or 46086000	1S1588TP-3
ID4	03117600	1S2473T77
	or 46086000	1S1588TP-3
ID5	03117600	1S2473T77
	or 46086000	1S1588TP-3
•Zener Diode		
IDZ1	46111100	05Z5.1-X
	or 46111200	05Z5.1-Y
oZ9	46371500	4P Terminal, SOURCE REC

5. OTHER PARTS

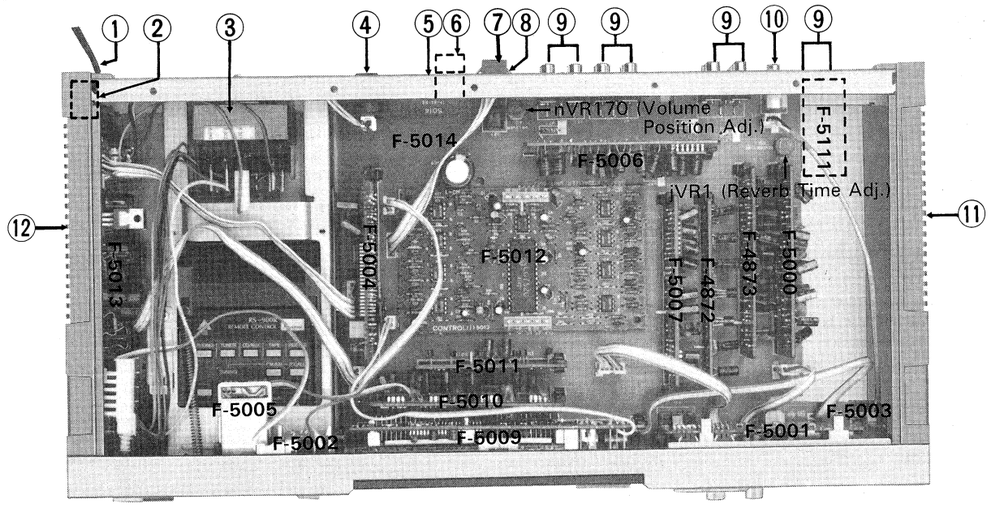
5-1. Front View



Parts List <Front View>

Parts No.	Stock No.	Description
2	48186800	Push SW., POWER (XX, XX-V, EU, BS, AS)
	48186900	Push SW., POWER (UL, CSA)
6	48169400	Push SW., SPECTRUM ANALYZER
7	46396700	Push SW., SOURCE/VIDEO S.
8	46556300	Push SW., LINE
9	46556400	Push SW., MIC
11	48196800	20kΩ (B) VR., REVERB
12	48072500	3P Terminal, VIDEO IN, AUDIO IN
14	48198400	10kΩ (B) V.R., MULTIDIMENSION LEVEL
15	48198300	20kΩ (A) V.R., MIC LEVEL
16	07219700	Jack, MIC
17	46556300	Push SW., VIDEO, TAPE
18	47747200	Push Knob., TAPE, VIDEO
<Silver Model>		
1	47747000	Knob, POWER
3	47860400	Front Panel Ass'y
3-1	47856200	Knob, EJECT
3-2	47856000	Knob Guide, EJECT
3-3	47895700	Spring, EJECT
4	47854700	Bonnet
5	47915200	Push Knob, SPECTRUM ANALYZER, LINE, MIC
10	47857000	Slide Knob Ass'y, REVERB
13	47794600	Knob, MIC LEVEL, MULTIDEMENSION LEVEL
<Black Model>		
1	47747100	Knob, POWER
3	47860500	Front Panel Ass'y
3-1	47856200	Knob, EJECT
3-2	47856000	Knob Guide, EJECT
3-3	47895700	Spring, EJECT
4	47872700	Bonnet
5	47915100	Push Knob, SPECTRUM ANALYZER, LINE, MIC
10	47857100	Slide Knob, Ass'y, REVERB
13	07895410	Knob, MIC LEVEL, MULTIDEMENSION LEVEL

5-2. Top View



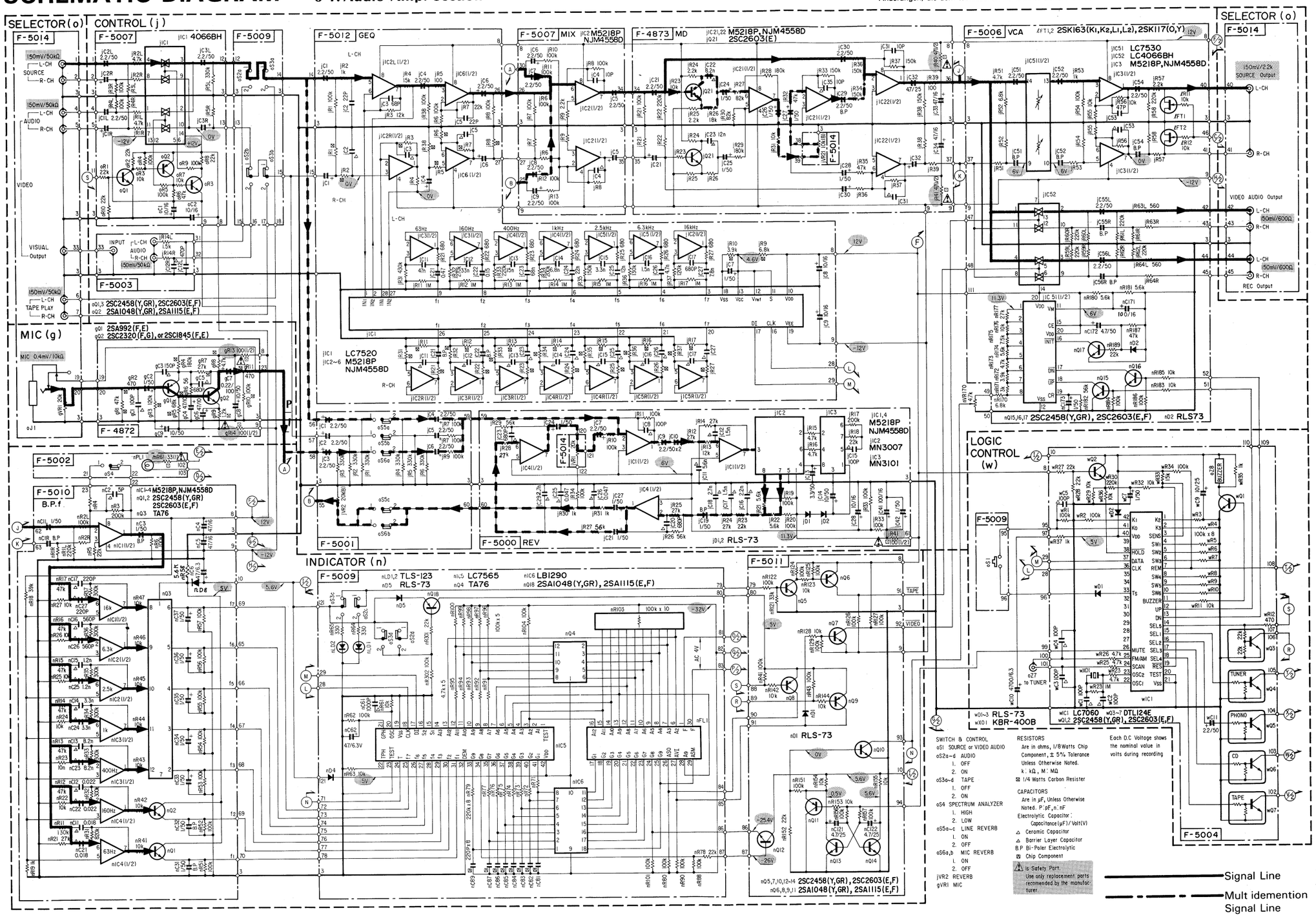
Parts List <Top View>

Parts No.	Stock No.	Description
⚠ 1	46604400	Power Supply Cord (XX, XX-V, UL)
⚠	48187700	Power Supply Cord (CSA)
⚠	38004500	Power Supply Cord (EU)
⚠	38004300	Power Supply Cord (BS)
⚠	07204200	Power Supply Cord (AS)
2	47831100	Cord Cover
⚠ 3	15020701	Power Transformer (XX)
⚠	15020709	Power Transformer with Voltage Selector Socket (XX-V)
⚠	15020702	Power Transformer (UL, CSA)
⚠	15020705	Power Transformer (EU, BS, AS)
⚠ 4	46364900	AC Outlet (XX, XX-V, UL)
⚠	48184000	AC Outlet (CSA)
⚠	46161000	AC Outlet (EU)
⚠	46364800	AC Outlet (BS)
⚠	46580600	AC Outlet (AS)
⚠ 5	07204700	Slide SW., VOLTAGE SELECTOR (EU, BS, AS)
⚠ 6	48175200	Plug, VOLTAGE SELECTOR (XX-V)
7	16416500	Socket, REMOTE CONTROL
8	46547200	Jack, TUNER REMOTE
9	46371500	4P Terminal, VIDEO S. IN/AUDIO OUT, SOURCE, TAPE, SOURCE REC
10	48198000	1P Terminal, VIDEO OUT
11	47873010	Right Side Panel Ass'y <Silver Model>
	47873110	Right Side Panel Ass'y <Black Model>
12	47872810	Left Side Panel Ass'y <Silver Model>
	47872910	Left Side Panel Ass'y <Black Model>

6. SCHEMATIC DIAGRAM

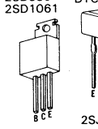
6-1. Audio Amp. Section

*Design and specifications subject to change without notice for improvement.
*La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
*Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

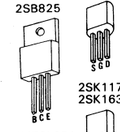


2SA992 2SA1048
2SC1845 2SA1115
2SC2320L

2SB507 2SA933S
2SD313AL 2SC1740S
2SD880 2SC2785
2SD1061 DTC124

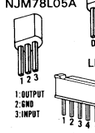


2SB825 2SJ103



2SK117
2SK163

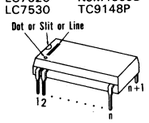
NJM78L05A



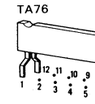
LB1290

LC7565
μPD4011BC M4011BP
BU4011B M5218P
LC4066BH MN3007
LC4966 MN3101
LC7060 NJM4558D
LC7520 NJM4559D
LC7530 TC9148P

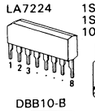
Dot or Slit or Line



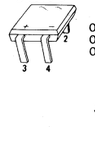
TA76



LA7224 1S1588
1S2473
10E-2



DBB10-B 05Z13
05Z33
05Z5.1



A	B	C	D	E	F	G	H

6-2. Power Supply Section

*Design and specifications subject to change without notice for improvement.
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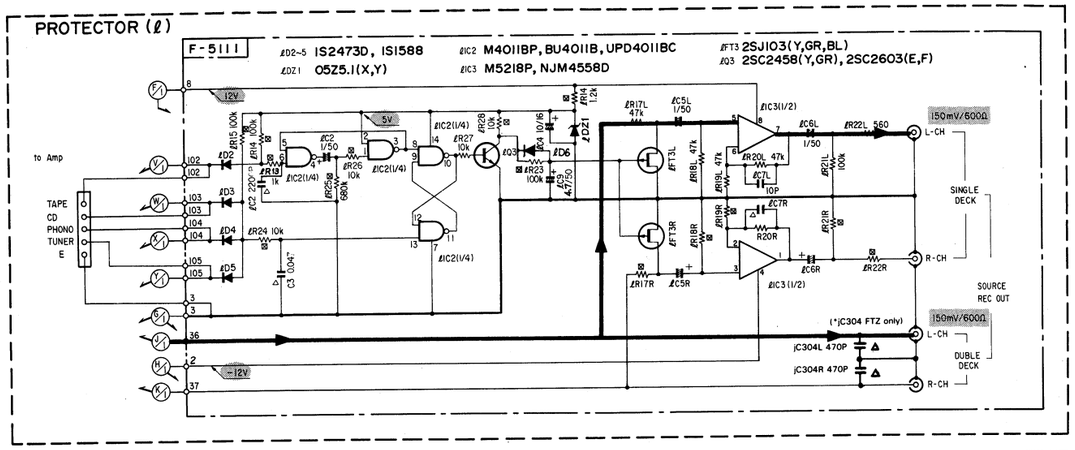
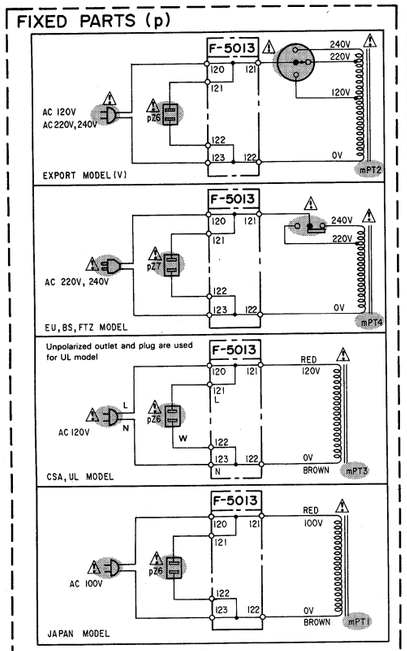
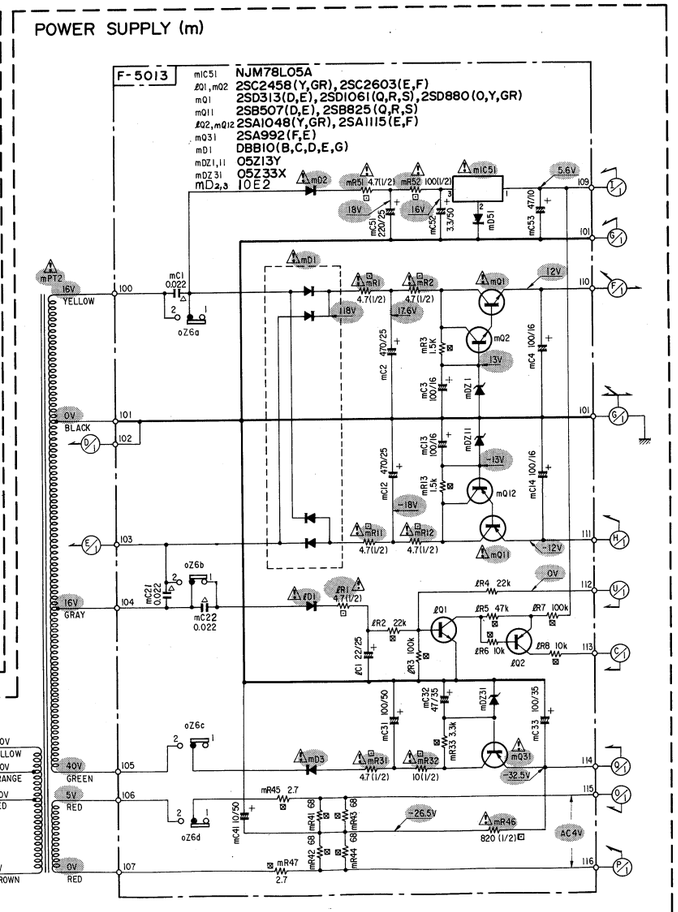
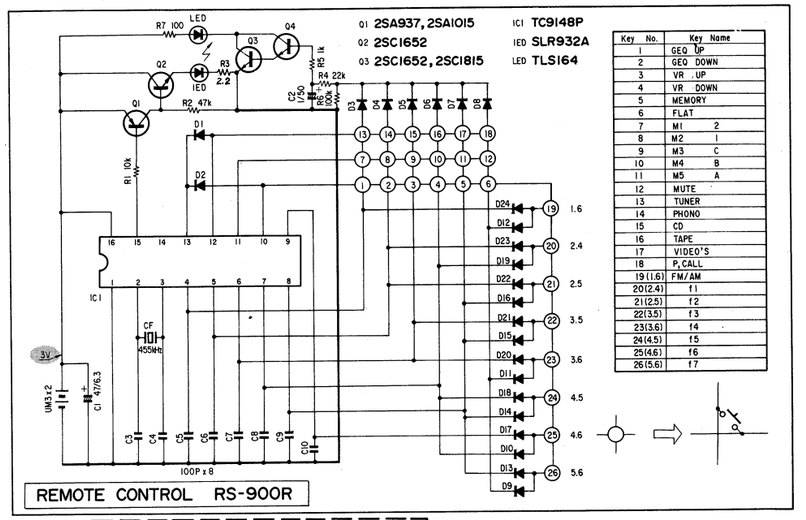
*Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

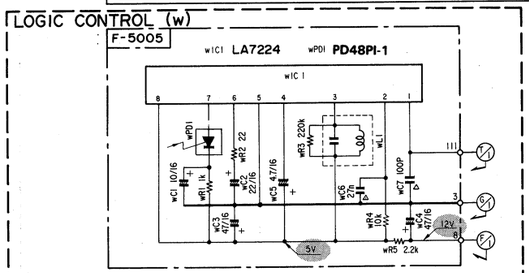


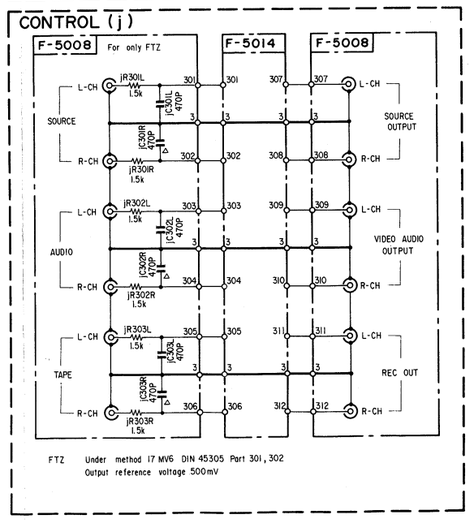






Key No.	Key Name
1	GEQ UP
2	GEQ DOWN
3	VR UP
4	VR DOWN
5	MEMORY
6	FLAT
7	M1 2
8	M2 1
9	M3 C
10	M4 B
11	M5 A
12	MUTE
13	TUNER
14	PHONO
15	CD
16	TAPE
17	VIDEO'S
18	P.CALL
19(1.6)	FM/AM
20(2.4)	I1
21(2.5)	I2
22(3.5)	I3
23(3.6)	I4
24(4.5)	I5
25(4.6)	I6
26(5.6)	I7



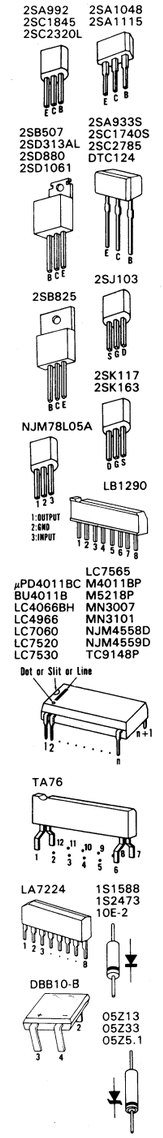


SYMBOL OF FUNCTION
(g) MIC
(j) CONTROL
(ℓ) PROTECTOR
(m) POWER SUPPLY
(n) INDICATOR
(o) SELECTOR
(p) FIXED PARTS

⚠ is Safety Part.
Use only replacement parts recommended by manufacturer.

Each D.C Voltages shows the nominal value in Volts at no input signal.

Signal Line



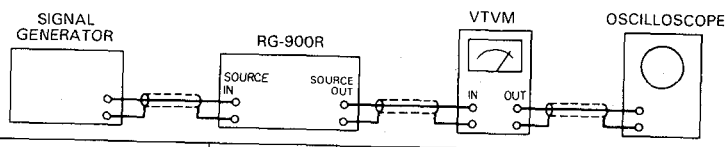
7. ADJUSTMENTS (See Top View on Page 16)

7-1. Adjustment of Reverb Level

SETTING: 1) Connect the mesurement units as Fig. 7-1.
2) Set the control knob as follows.

SELECTOR ..... SOURCE
EQUALIZER ..... FLAT
REVERB DEPTH ..... Max.
REVERB LINE ..... ON
REVERB MIC ..... OFF
VOL ..... Max.

Fig. 7-1



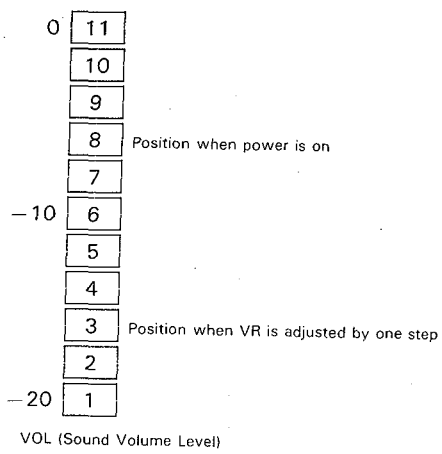
INPUT SIGNAL	MEASURE OUTPUT	STEP	ADJUSTMENT
800 Hz 1.5V SG SOURCE IN	SOURCE OUT VTVM, Scope	1	Turn the semi-variable resistor jVR1 (F-5014) fully clockwise.
		2	Push LINE INPUT switch to be TAPE.
		3	Confirm that the reverberation circuit starts to oscillate, and its wave form comes out from SOURCE OUT.
		4	Turn jVR1 slowly counterclockwise until the oscillation stops.

Note: When the osillation at STEP3 is not occured, STEP4 is not necessary.

7-2. Adjustment of Electronic Sound Volume Level Position Indication

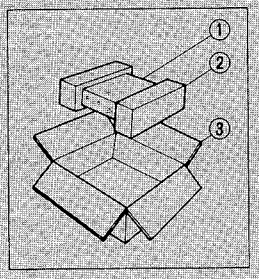
(1) With power turned on, rotate the variable resistor nVR170 so that VOL indicators from 1 to 8 come simultaneously. (Preliminary adjustment)
(2) Continuously depress VOL.-DOWN key of REMOTE CONTROL RS-900R to allow all the VOL indicators to go off.
(3) Depress VOL.-UP key once.
(4) Adjust the variable resistor nVR170 so that the VOL indicators from 1 to 3 come on simultaneously.

•VOL indicators



8. PACKING LIST

Parts No.	Stock No.	Description
1	47859300	Vinyl Cover
2	07965300	Styrofoam Packing
3	47855000	Carton Case <Silver Model> (XX, UL, CSA, EU, BS, AS)
	47855100	Carton Case <Black Model> (XX, UL, CSA, EU, BS, AS)
	47854800	Carton Case <Silver Model> (XX-V)
	47854900	Carton Case <Black Model> (XX-V)



9. ACCESSORY LIST

	Stock No.	Description
	48197700	Remocon Cable
	07193400	PJP Cord
or	38103300	PJP Cord
	48181700	Mini Pin Plug Cord
	46969300	Operating Instruction
	———	Remote Control Unit RG-900R

Sansui

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SANSUI ELECTRONICS (U.K.) LTD.: Unit 10A, Lyon Industrial Estate, Rockware Avenue, Geenford, Middx UB6, OAA, England
SANSUI ELECTRONICS G.M.B.H.: Pau Ehrich Strasse 8, 6074 Rödermark 2, West Germany

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